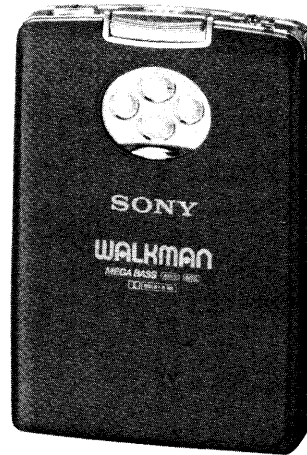


WM-EX5

SERVICE MANUAL

*US Model
Canadian Model
AEP Model
UK Model
E Model
Tourist Model*



Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	MT-WMEX5-125

SPECIFICATIONS

Tape section

Frequency response (Dolby NR off)

Playback: 30–18,000 Hz

Output

Headphones (REMOTE  jack)
Load impedance 8–300 ohms

Power output

5 mW + 5 mW (16 ohms)

General

Power requirements

1.5 V
Rechargeable battery
One R6 (size AA) battery

Dimensions (w/h/d)

Approx. 79 x 111.7 x 22.8 mm
(3 1/8 x 4 3/8 x 2 1/2), incl. projecting
parts and controls

Mass

Approx. 145 g (6 oz.)
Approx. 245 g (8.7 oz) (incl.
rechargeable battery, headphones
with remote control and cassette)

Supplied accessories

Battery case (1)
Stereo headphones with remote
control (1)
Battery charger (1)
Rechargeable battery
NC-6WM, 1.2V, 600mAh, Ni-Cd
(1) (UK, European continent and
Canadian model only)
NH-9WM(N), 1.2V, 1200mAh, Ni-
MH (1) (U.S.A., Korea and Other
countries model)
Rechargeable battery carrying case
(1)
Carrying pouch (1)
Cleaning cloth (1)
AC plug adaptor (1) (Excluding
UK, European continent, Korea,
U.S.A. and Canada)

Design and specifications subject to
change without notice.

Battery life (Approx. hours)

Rechargeable battery	Tape playback
NC-6WM	12
NH-9WM(N)	22

Some features are:

- You can enjoy high treble sounds to low bass sounds restored by the powerful headphone
- You can choose from 3 different emphasizing tones: REVIVE, MEGA BASS and GROOVE to adjust to your favorite sound
- AMS (Automatic Music Sensor) function that lets you find the beginning of the previous and succeeding 9 tracks
- Repeat Single Track function that lets you listen to a single track repeatedly
- Music Scan function that lets you listen to the beginning of each track for 10 seconds
- Remote control equipped with the EL (electroluminescent) illumination LCD (liquid crystal display) that lets you check operation in the dark

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.



CASSETTE PLAYER

SONY®

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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK $\triangle$ OR DOTTED LINE WITH MARK $\triangle$ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

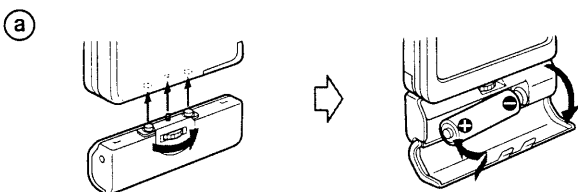
ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE $\triangle$ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

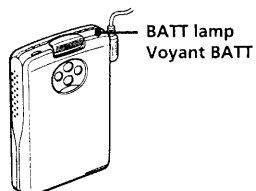
SECTION 1 GENERAL

This section is extracted
from instruction manual.

A

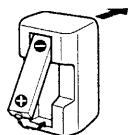


(b)

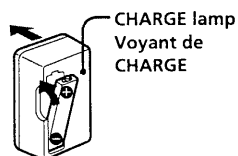


(c)

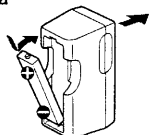
UK model
Modèle britannique



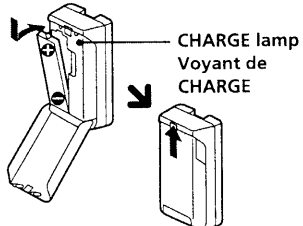
U.S.A. model
Modèle américain



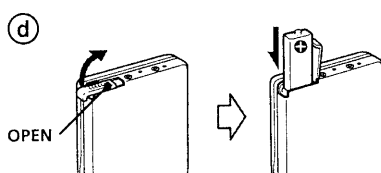
European Continent and
Canadian model
Modèle pour l'Europe et le
Canada



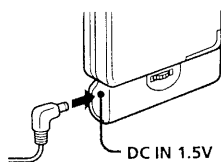
Korean and other countries
model
Modèle pour l'Coréen et le
autres pays



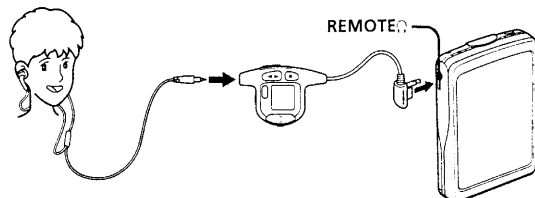
(d)



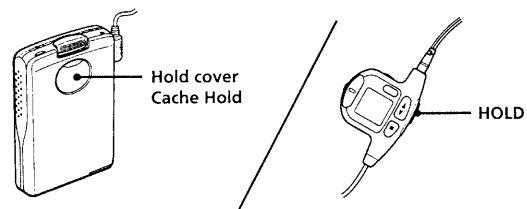
(e)



B

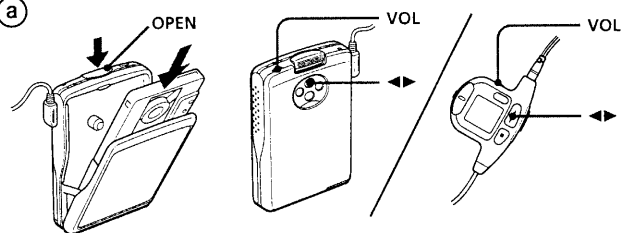


C

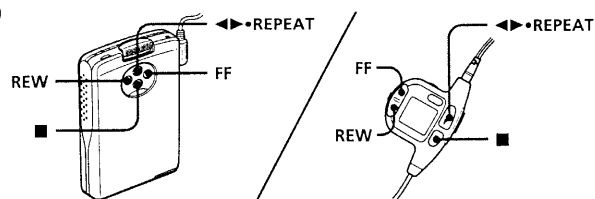


D

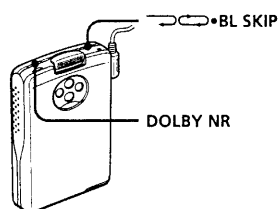
(a)



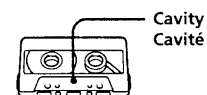
(b)



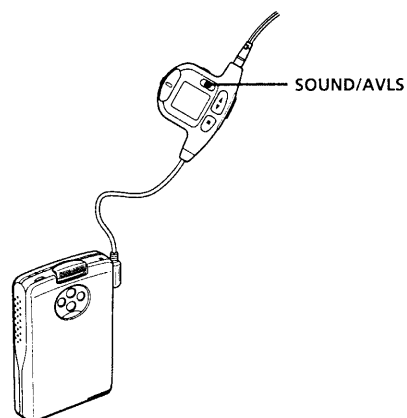
(c)



(d)



E



SECTION 2 SERVICE NOTE

Service Mode

Mode for operating the mechanism section with the AUDIO board opened.

1. Setting

- 1) Refer to "Disassembly", and remove the cabinet and open the AUDIO board.
- 2) Connect the motor and plunger to the AUDIO board using jumper wires. These can be connected easily with the use of the extension tool (1-769-143-11) (ten in one set).
- 3) Solder across the SERVICE MODE terminals (BP701) and the HOLDER terminals (BP702).
- 4) Set the BL SKIP switch to off.
- 5) Supply 1.3V to the ⊕ and ⊖ terminals of the battery using a regulated power supply.
- 6) Unsolder the SERVICE MODE terminals (BP701).

2. Preset state

To set the PLAY, FF, REW modes, the preset state must be set.

- 1) Check that the lever (SW) and F/R switch (S707) are set to the center position. If not, set the preset state as follows.
- 2) Move the F/R switch (S707) to the side which the lever (SW) is facing.
- 3) The lever (SW) will move when the regulated power supply switch is set to OFF once and then set to ON. Move the F/R switch (S707) according to this timing and set to the center position.

3. FF, REW Modes

- 1) Check that the preset state is set and press the FF and REW switches.

4. PLAY mode

- 1) Check that the preset state is set.
- 2) Pressing the ◀▶ switch on the keyboard unit will move the lever (SW) once towards the side F and then to the side R. Moving the F/R switch (S707) according to this timing will set the PLAY mode (side R). Pressing the ◀▶ switch another time and moving the F/R switch (S707) according to the movement of the lever (SW) will set the PLAY (side F) mode.

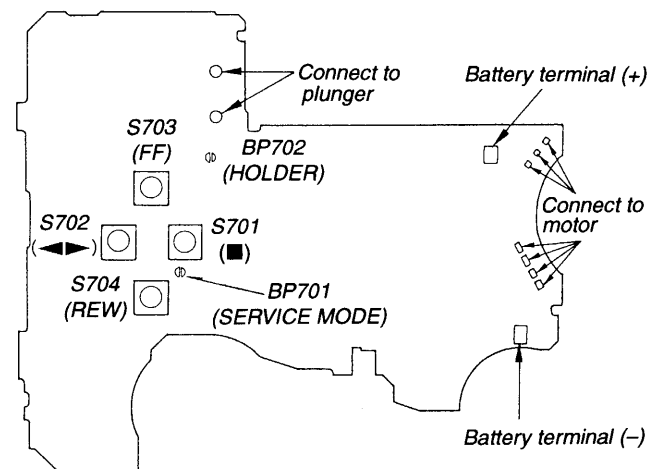
Note 1: If the above fails, perform from preset again.

Note 2: Use the ◀▶, ■, FF, REW switches on the remote commander as much as possible. If no remote commander, do not touch the switches (S701-S704) with your hands, but using a stick with a round tip.

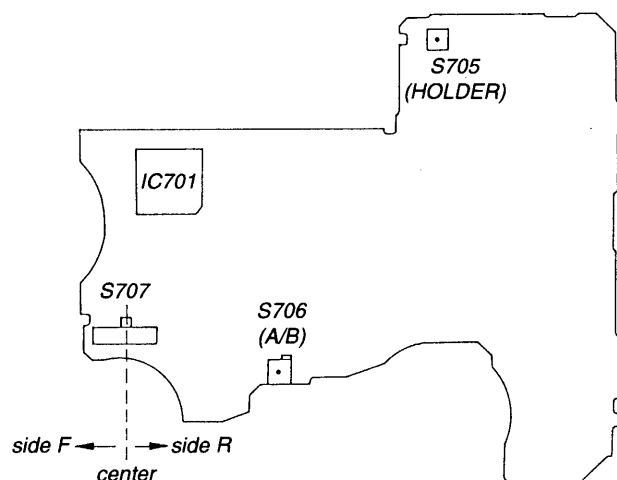
Note 3: When using headphones, the timing for moving the S707

AUDIO BOARD

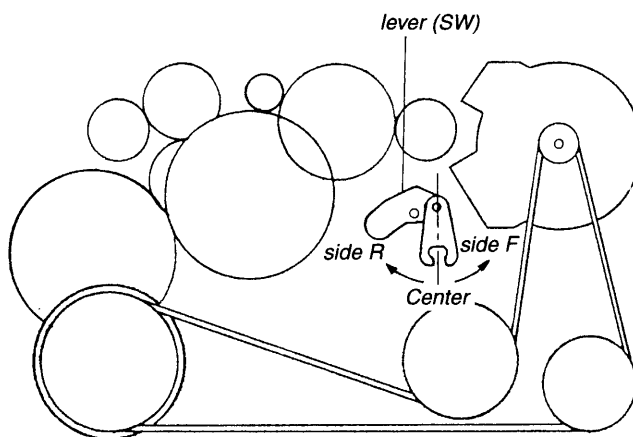
– Side A –



– Side B –

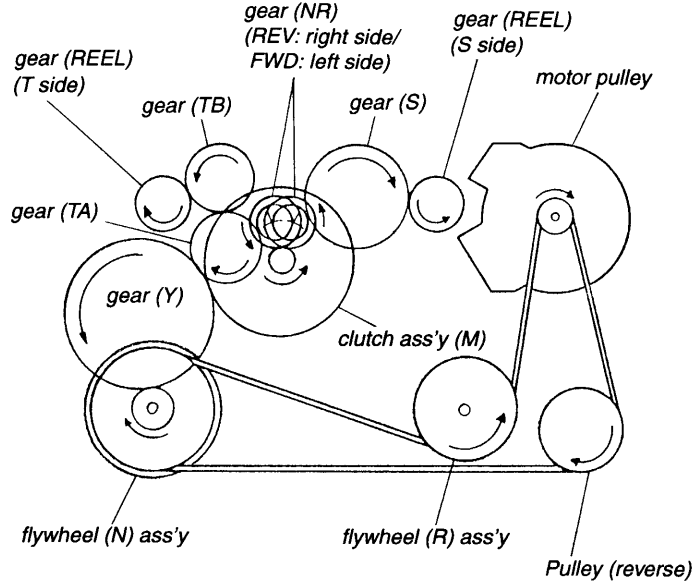


Lever (SW)

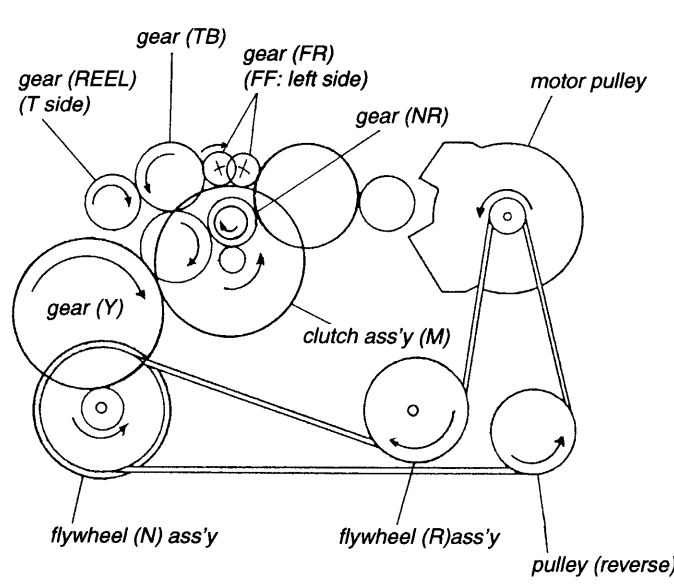


Rotation system

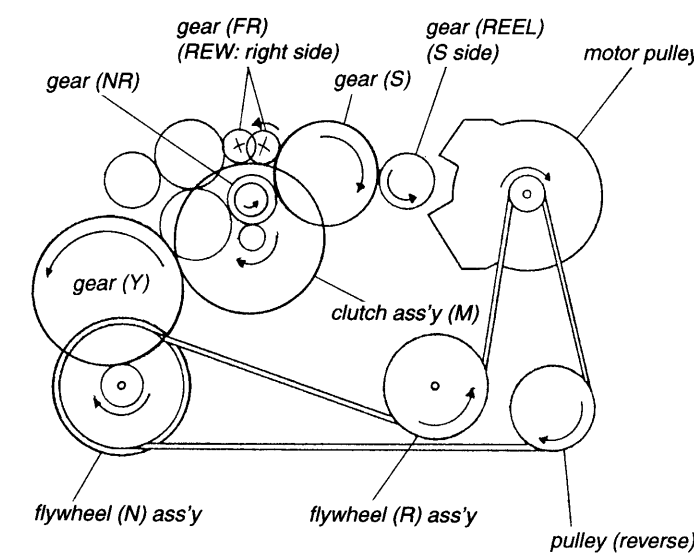
Rotation system during PLAY.



Rotation system during FF.



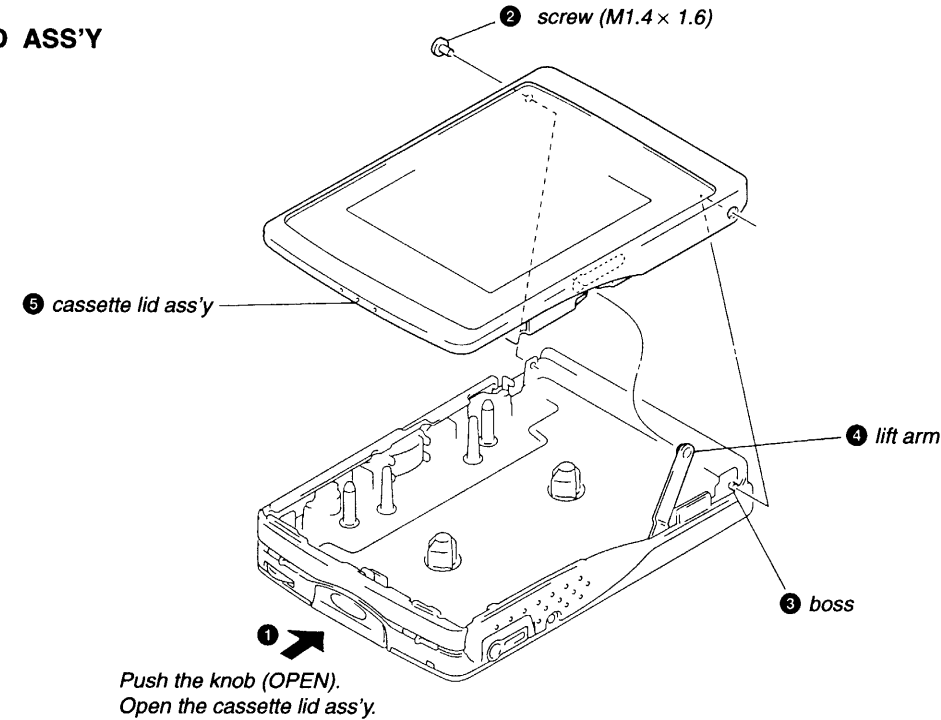
Rotation system during REW.



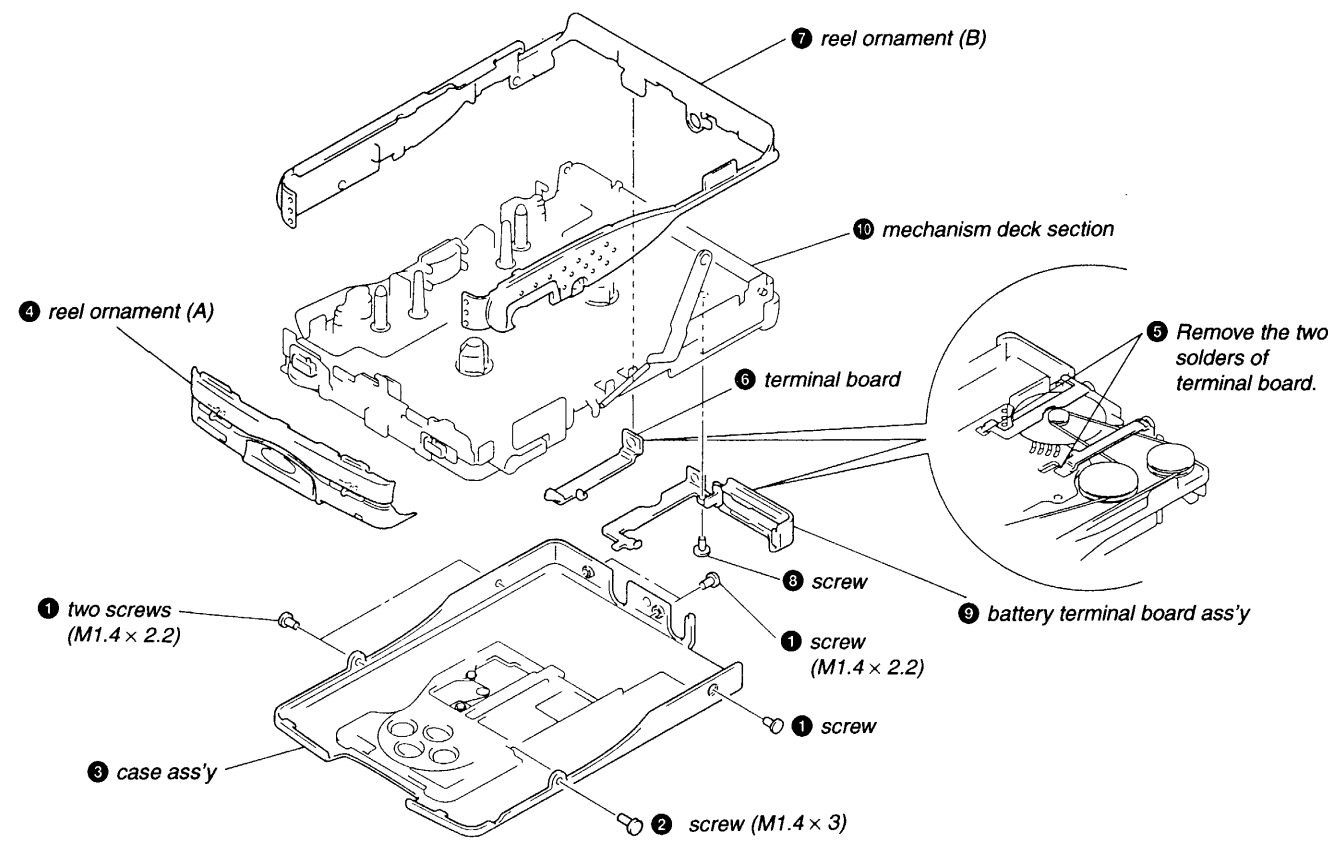
SECTION 3
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

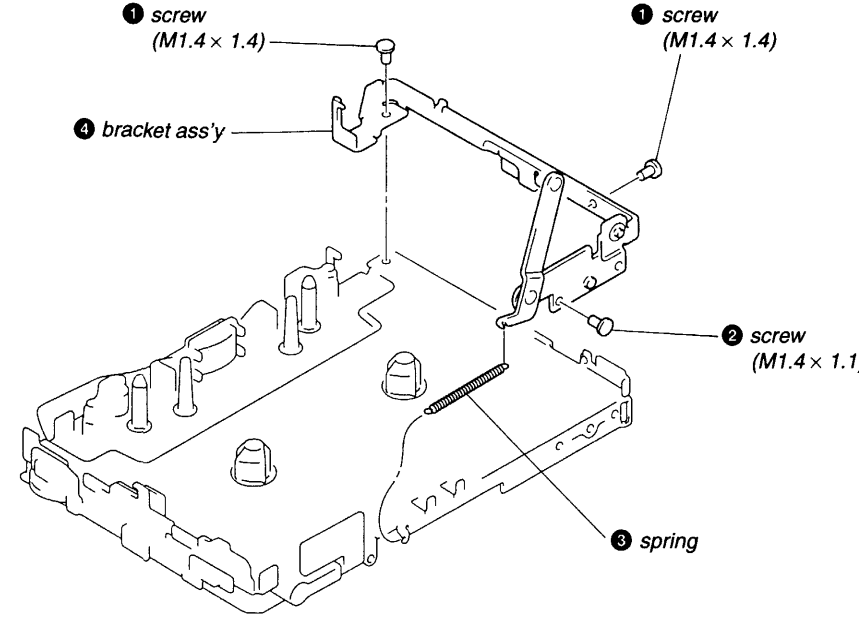
CASSETTE LID ASS'Y



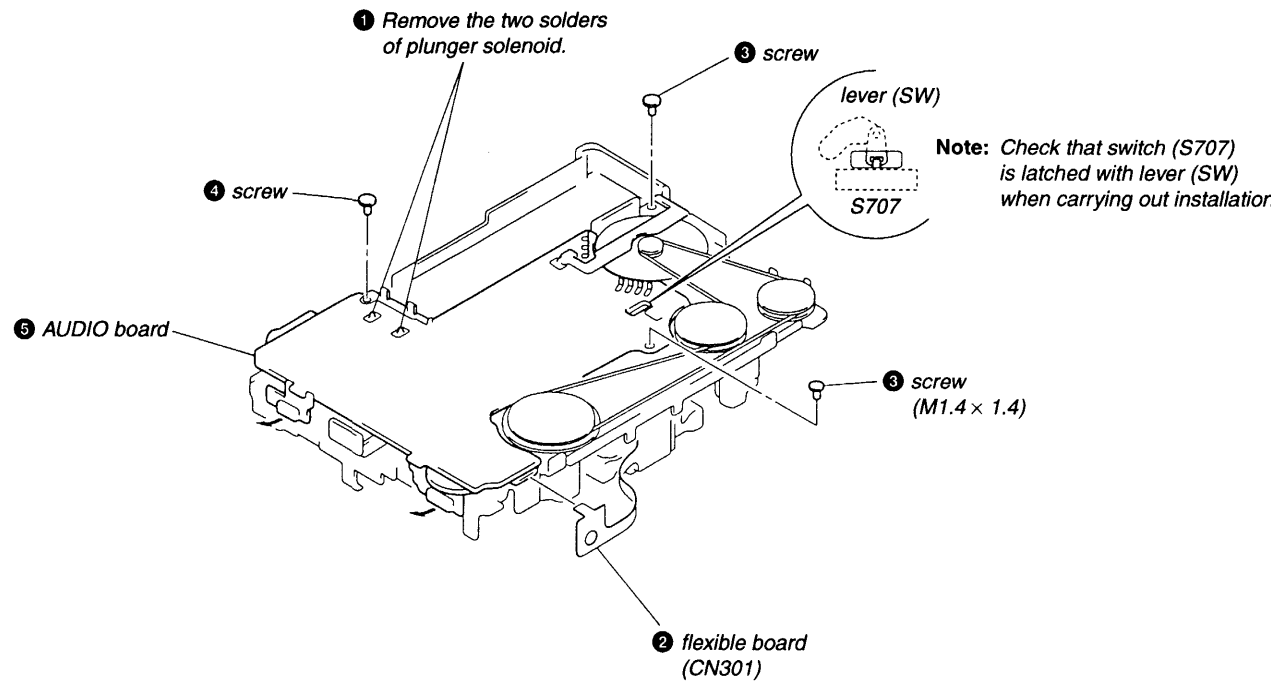
REEL ORNAMENT ASS'Y, CASE ASS'Y



BRACKET ASS'Y



AUDIO BOARD



SECTION 4
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:
record/playback head
rubber belts
pinch roller
capstan
2. Demagnetize the record/playback head with a head demagnetizer.
(Do not bring the head demagnetizer close to the erase head.)
Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjusted.
4. The adjustments should be performed with the rated power supply voltage (1.3 V) unless otherwise noted.

Torque Measurement:

Mode	Torque meter	Meter reading
FWD	CQ-102D	18~30 g · cm (0.25 ~ 0.41 oz · inch)
FWD back tension		0.7~2.0 g · cm (0.006 ~ 0.027 oz · inch)
REV	CQ-102RC	18~30 g · cm (0.25~0.41 oz · inch)
REV back tension		0.7~2.0 g · cm (0.006 ~ 0.027 oz · inch)
FF	CQ-201B	more than 35 g · cm (more than 0.49 oz · inch)
REW		

SECTION 5
ELECTRICAL ADJUSTMENTS

PRECAUTION

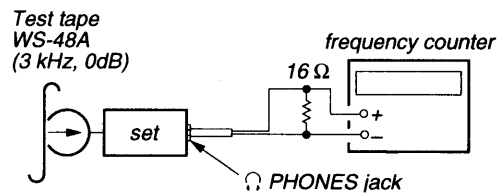
1. Specified voltage : 1.3 V (DC)
2. Switch position
F/R switch : FWD
MODE switch :

Test tape

Type	Signal	Used for
WS-48A	3 kHz, 0 dB	Tape Speed Adjustment

Tape Speed Adjustment

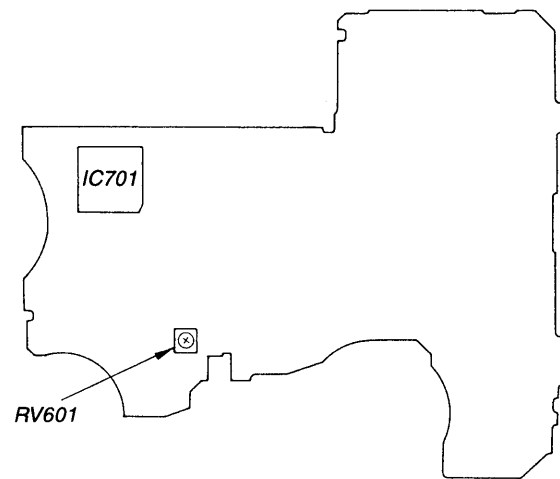
Procedure:



1. Playback WS-48A (tape center part) in the FWD state and adjust RV601 so that the frequency counter reading becomes 3,000 ± 15 Hz.
2. Playback WS-48A (tape center) in the REV state. Check that the frequency counter reading is within 2.5% of the reading of step 1.

Adjutment Location:

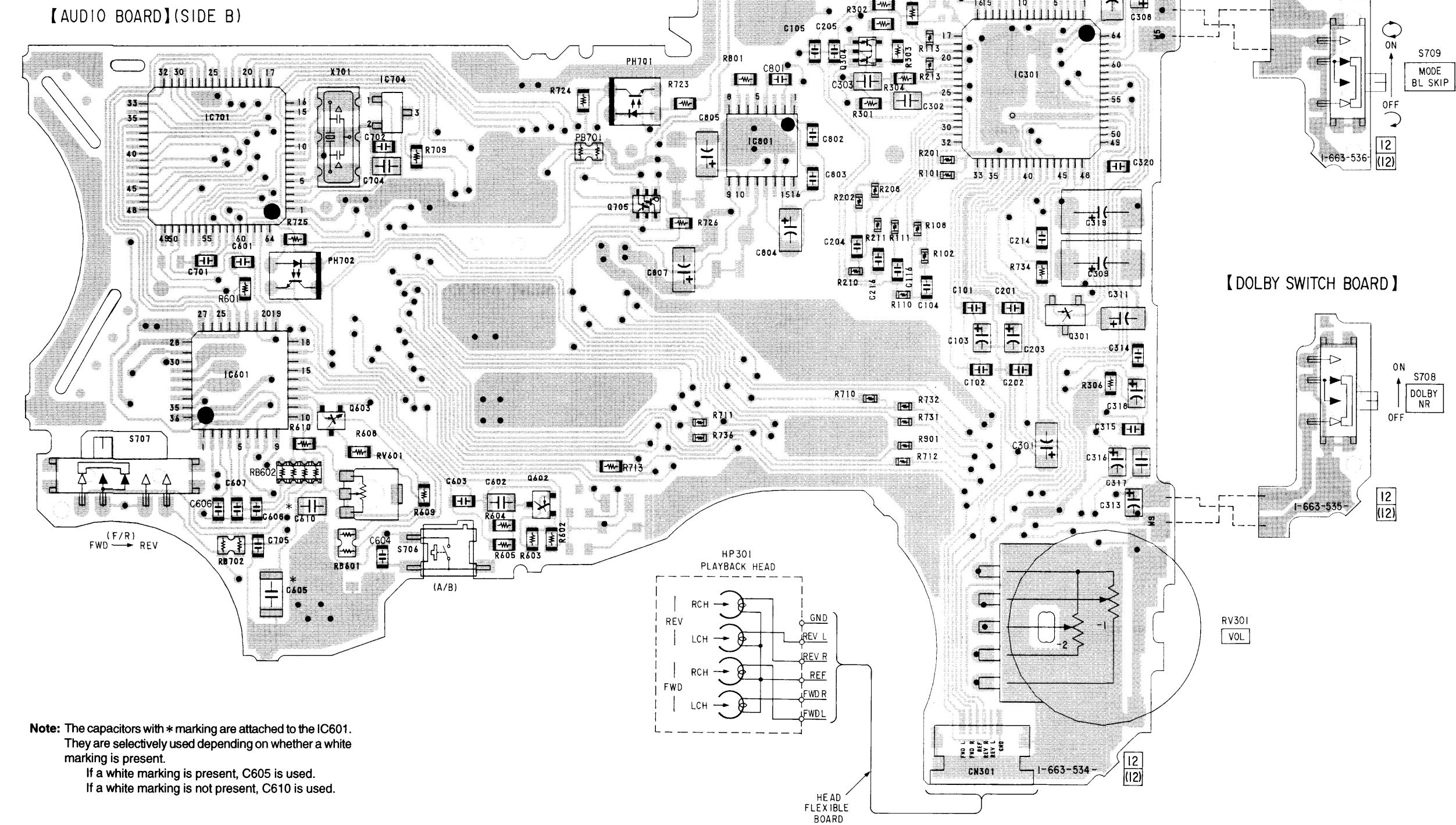
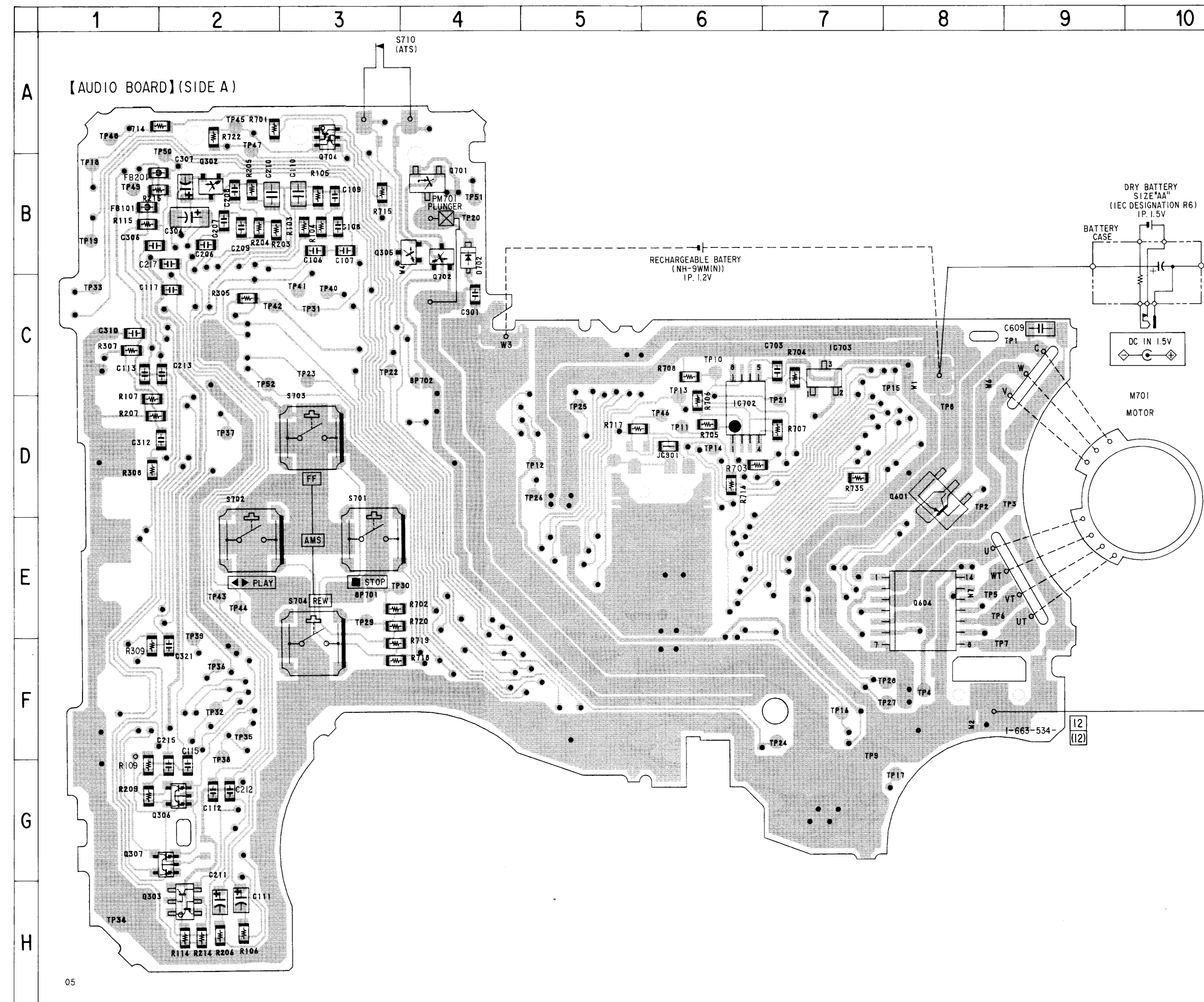
[AUDIO BOARD] (Side B)



Semiconductor Location	
Ref. No.	Location
D701	B-19
D702	B-4
D901	B-19
D902	B-17
IC301	C-18
IC601	E-12
IC701	D-12
IC702	D-6
IC703	D-7
IC704	C-13
IC801	D-16
PH701	C-15
PH702	E-13
Q301	E-18
Q302	B-2
Q303	H-2
Q304	C-17
Q305	B-4
Q306	G-2
Q307	G-2
Q601	D-8
Q602	F-14
Q603	F-13
Q604	E-8
Q701	B-4
Q702	B-4
Q704	A-3
Q705	D-15

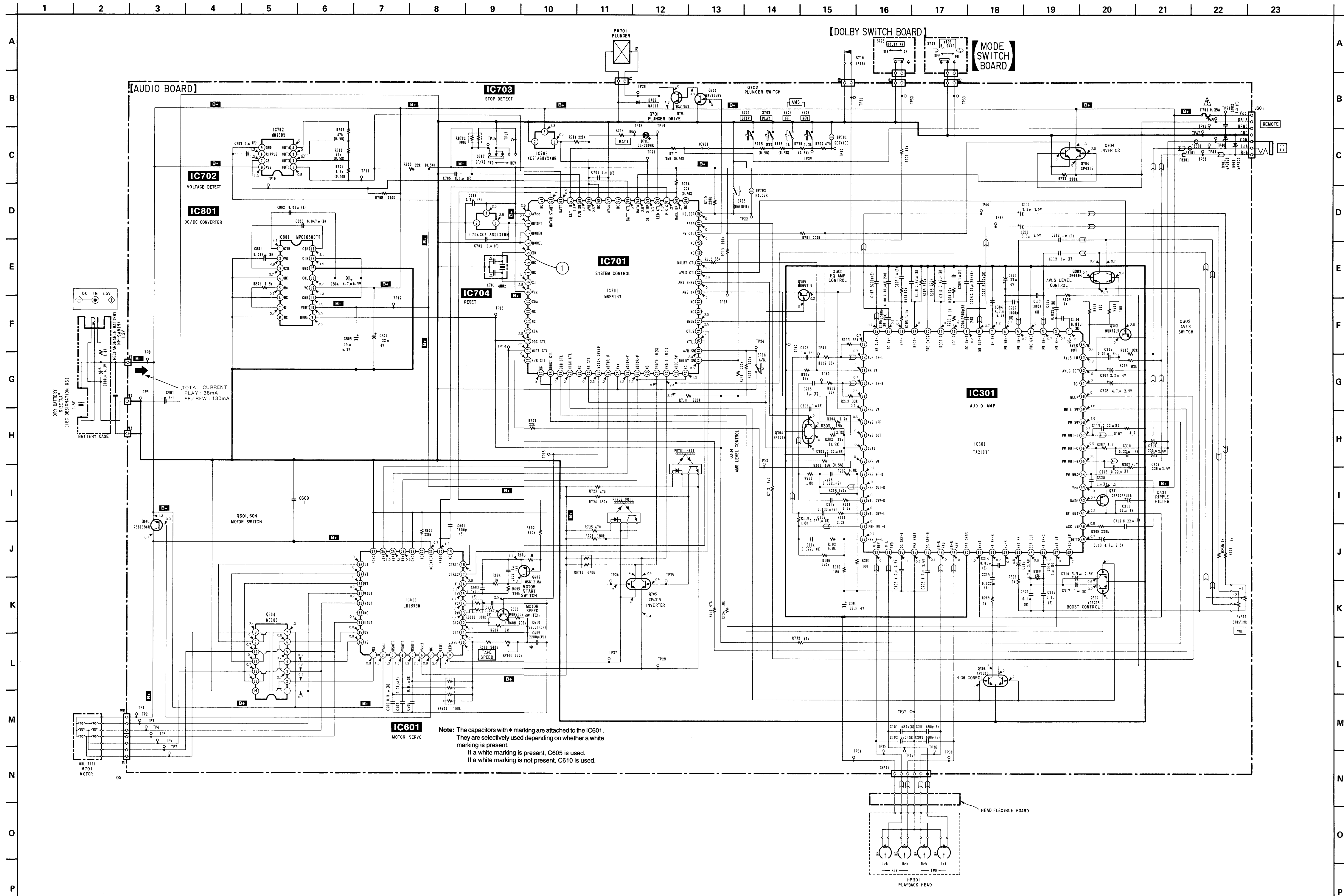
Note:

- — : parts extracted from the component side.
- : parts extracted from the conductor side.
- : Through hole.
- △ : internal component.
- ▨ : Pattern from the side which enables seeing (The other layers' patterns are not indicated.)



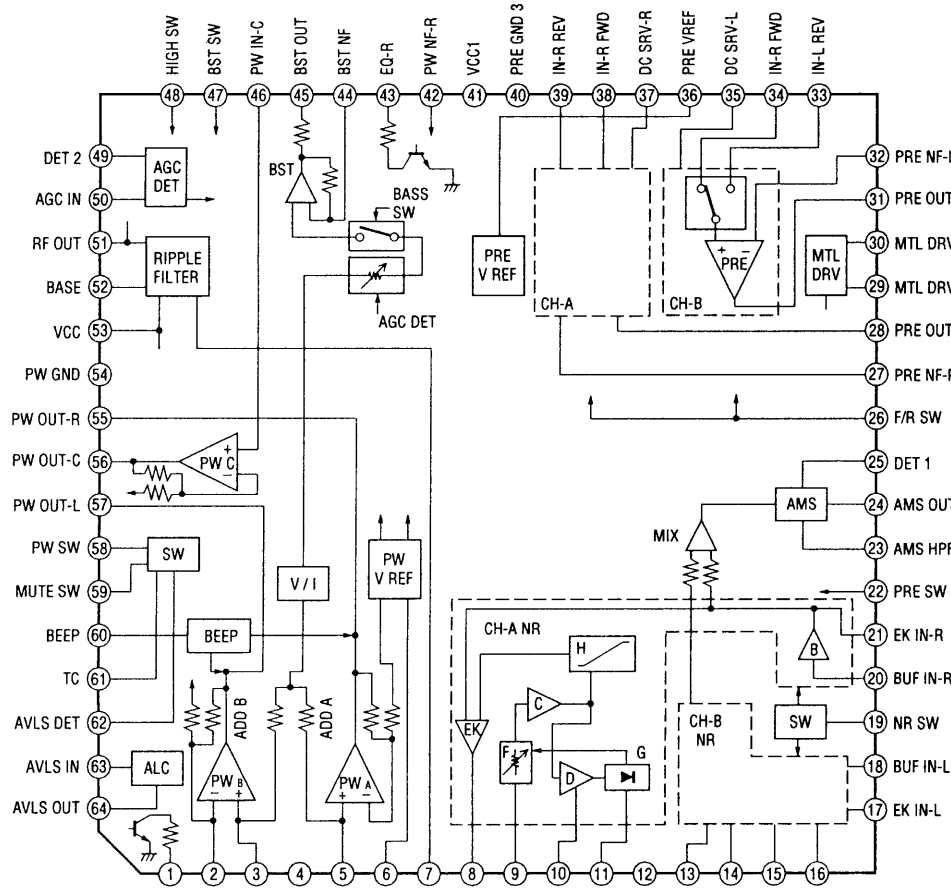
Note: The capacitors with * marking are attached to the IC601. They are selectively used depending on whether a white marking is present.

- If a white marking is present, C605 is used.
- If a white marking is not present, C610 is used.

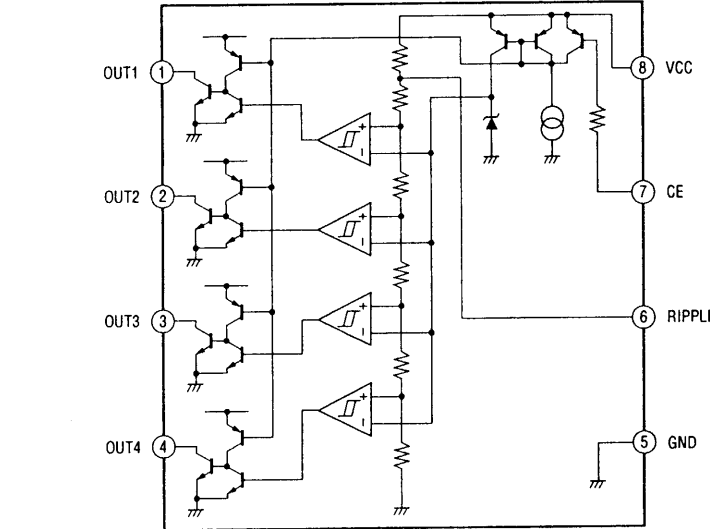


• IC Block Diagrams

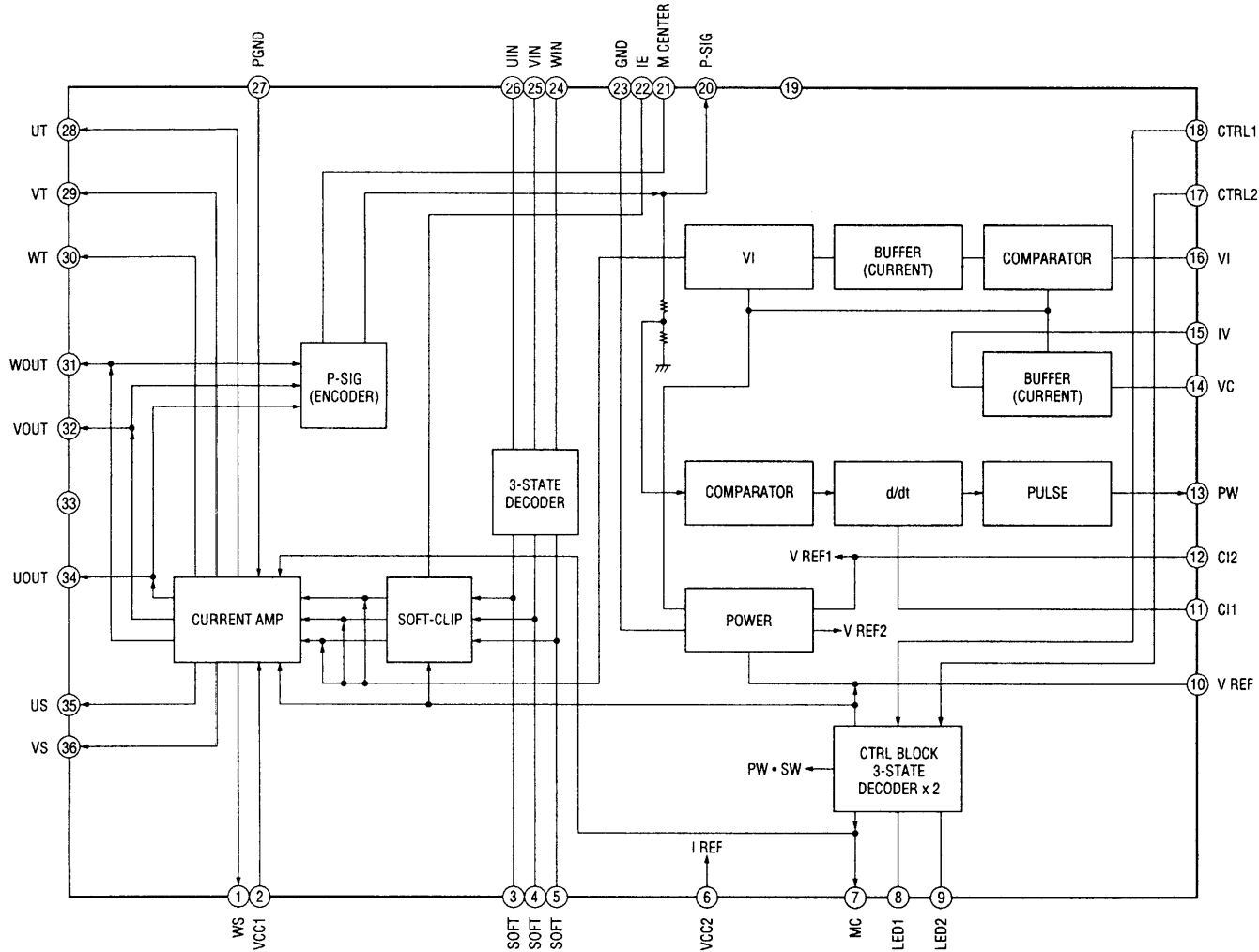
IC301 TA2103F



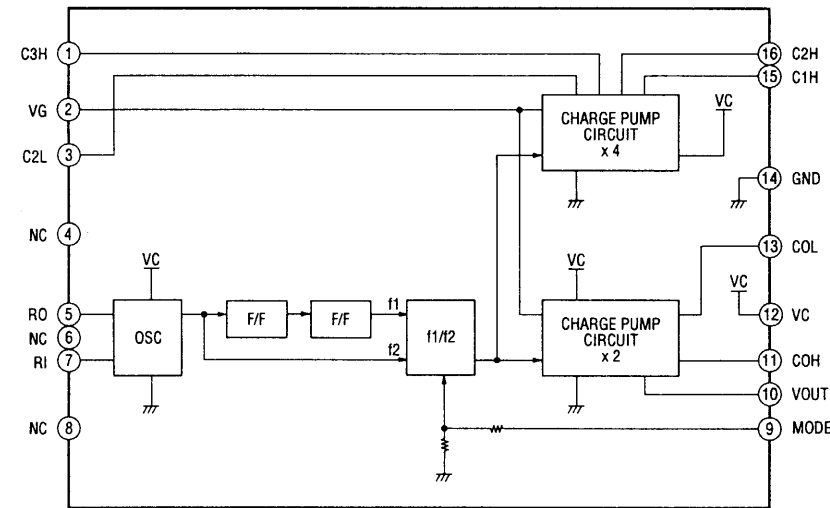
IC702 MM1305BWBE



IC601 LB1899M



IC801 MPC1850DTBEK



6-3. IC PIN FUNCTION DESCRIPTION

AUDIO BOARD IC701 MB89133L-CFX1466 (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Function
1	AVCC	—	Power supply to A/D converter
2	RESET	I	RESET input pin
3	MODE0	I	Test input pin (connected directly to VSS)
4	MODE1	I	Test input pin (connected directly to VSS)
5	X0	—	Main clock connection (4 MHz)
6	NC		
7	NC		
8	X1	—	Main clock connection (4 MHz)
9	VCC	—	Power supply
10	X0A	—	Subclock connection (32.768 kHz)
11	NC		
12	NC		
13	X1A	—	Subclock connection (32.768 kHz)
14	DDC CTL	O	DDC oscillating frequency change (Stop=L, Operating=H)
15	MUTE CTL	O	MUTE control (MUTE OFF=L, MUTE ON=H)
16	F/R CTL	O	Head switching (FWD=H, REV=L)
17	NC		
18	BOOST CTL	O	Tone control (OFF=L, REVIVE, MB, GROOVE=H)
19	DBB CTL	O	Tone control (MB=H, Others=L)
20	HIGH CTL	O	Tone control (HIGH=H, Other=L)
21	NC		
22	BS CTL	O	Sensitivity switching between BS and AMS (FF/REW=H, Others=L)
23	MOTOR SPEED	O	Middle speed/High speed switching (Low/High speed=L, Middle speed=H)
24	MOTOR-U	O	Motor control (ternary)
25	VSS	—	Power supply (GND)
26	MOTOR-V	O	Motor control (ternary)
27	MOTOR-W	O	Motor control (ternary)
28	NC		
29	PHOTO IN (S)	I	Rotation detection (supply side)
30	PHOTO IN (T)	I	Rotation detection (take-up side)
31	MODE SW	I	MODE and BL SKIP SW input (BL SKIP ON, ENDLESS=L)
32	NC		
33	DOLBY SW	I	DOLBY SW input (OFF=L, ON=H)
34	A/B SW	I	Tape A/B side detection SW input (A side up=L, B side up=H)
35	CTL1	O	Servo IC mode selection (ternary)
36	CYL2	O	Servo IC mode selection (ternary)
37	RMUM	I	With or without remote control (Request to resend=L)
38	NC		
39	NC		
40	MAS IN	I	Presence of music on tape (No music=L, Music=H)
41	AMS SENS	O	AMS sensitivity switching (Low speed=L, Middle/High speed=H)
42	AVLS CTL	O	AVLS control (OFF=H, ON=L)
43	DOLBY CTL	O	DOLBY control (OFF=H, ON=Input)

Pin No.	Pin Name	I/O	Function
44	NC		
45	NC		
46	PM CTL	O	Plunger control (OFF=H, ON=L)
47	BEEP	O	Beep sound (f=1.6 kHz)
48	HOLDER	I	Cassette cover open/close SW input (Closed=L, Open=H)
49	NC		
50	WAKE UP	I	Interrupt pin for STOP mode resetting
51	P-SIG	I	Motor control
52	LED CTL	O	LED control (ON=f/32 clock output, OFF=H)
53	SET STOP	I	Low voltage stop detection
54	DATA	O	Communication data output to LCD remote controller
55	BATT CTL	I/O	ON/OFF control of battery detection circuit
56	NC		
57	AVSS	—	Power supply to A/D converter
58	NC		
59	AVR	—	Reference voltage input to A/D converter
60	F/R Ws	I	Mode SW input of MD (A/D input) (FWD=L, REV=VDD/2)
61	KEY IN	I	Key input (A/D input), and also test mode pin
62	BATT DET	I	Voltage detection input (A/D input)
63	MOTOR START	O	Output for motor starting (N-ch open drain) (Start=L)
64	NC		

SECTION 7 EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts

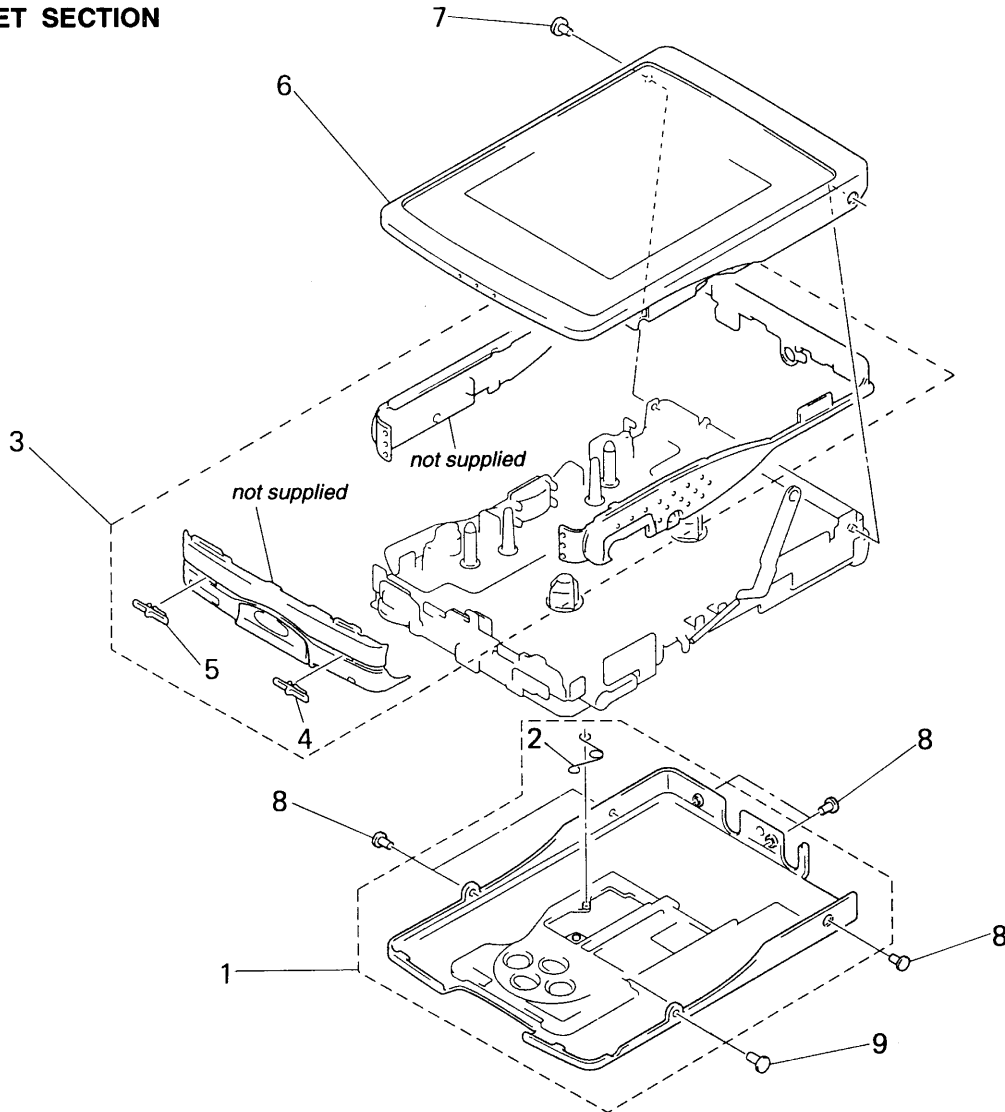
Example:

KNOB, BALANCE (WHITE) . . . (RED)

↑
↑
 Parts Color Cabinet's Color

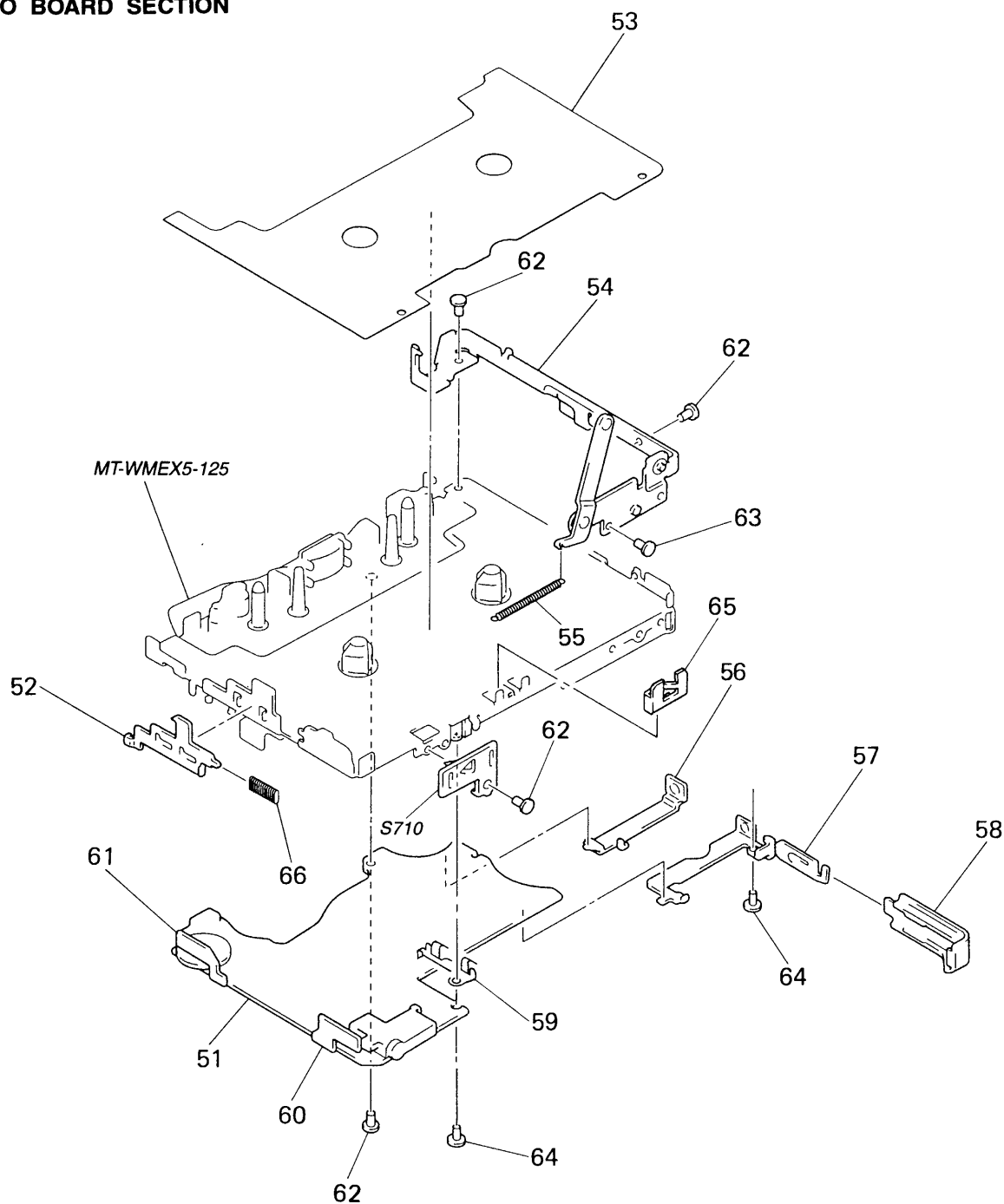
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories and packing materials are given in the last of the electrical parts list.

(1) CABINET SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-3372-825-1	CASE (B) ASSY (for BLACK) (Korea, Tourist)		6	X-3372-829-1	LID (L) ASSY, CASSETTE (for BLUE) (Korea, Tourist)	
1	X-3372-832-1	CASE (L) ASSY (for BLUE) (Korea, Tourist)		6	X-3372-830-1	LID (S) ASSY, CASSETTE (for SILVER)	
1	X-3372-833-1	CASE (S) ASSY (for SILVER)		6	X-3372-831-1	LID (R) ASSY, CASSETTE (for RED) (Korea, Tourist)	
1	X-3372-834-1	CASE (R) ASSY (for RED) (Korea, Tourist)		7	3-365-630-61	SCREW (M1.4) (for BLUE, RED, SILVER)	
2	3-007-272-01	SPRING (HOLD)		7	3-365-630-71	SCREW (M1.4) (for BLACK) (Korea, Tourist)	
3	X-3372-821-1	ORNAMENT (H) ASSY, REEL (for BLACK) (Korea, Tourist)		8	3-704-197-41	SCREW (M1.4X2.2) (for BLUE, RED, SILVER)	
3	X-3372-883-1	ORNAMENT (B) ASSY, REEL (for BLUE, RED, SILVER)		8	3-704-197-42	SCREW (M1.4X2.2), LOCKING (for BLACK) (Korea, Tourist)	
4	3-007-289-01	KNOB (MODE)		9	3-704-197-31	SCREW (M1.4X3), LOCKING (for BLUE, RED, SILVER)	
5	3-007-288-01	KNOB (DOLBY)		9	3-704-197-33	SCREW (M1.4X3), LOCKING (for BLACK) (Korea, Tourist)	
6	X-3372-823-1	LID (B) ASSY, CASSETTE (for BLACK) (Korea, Tourist)					

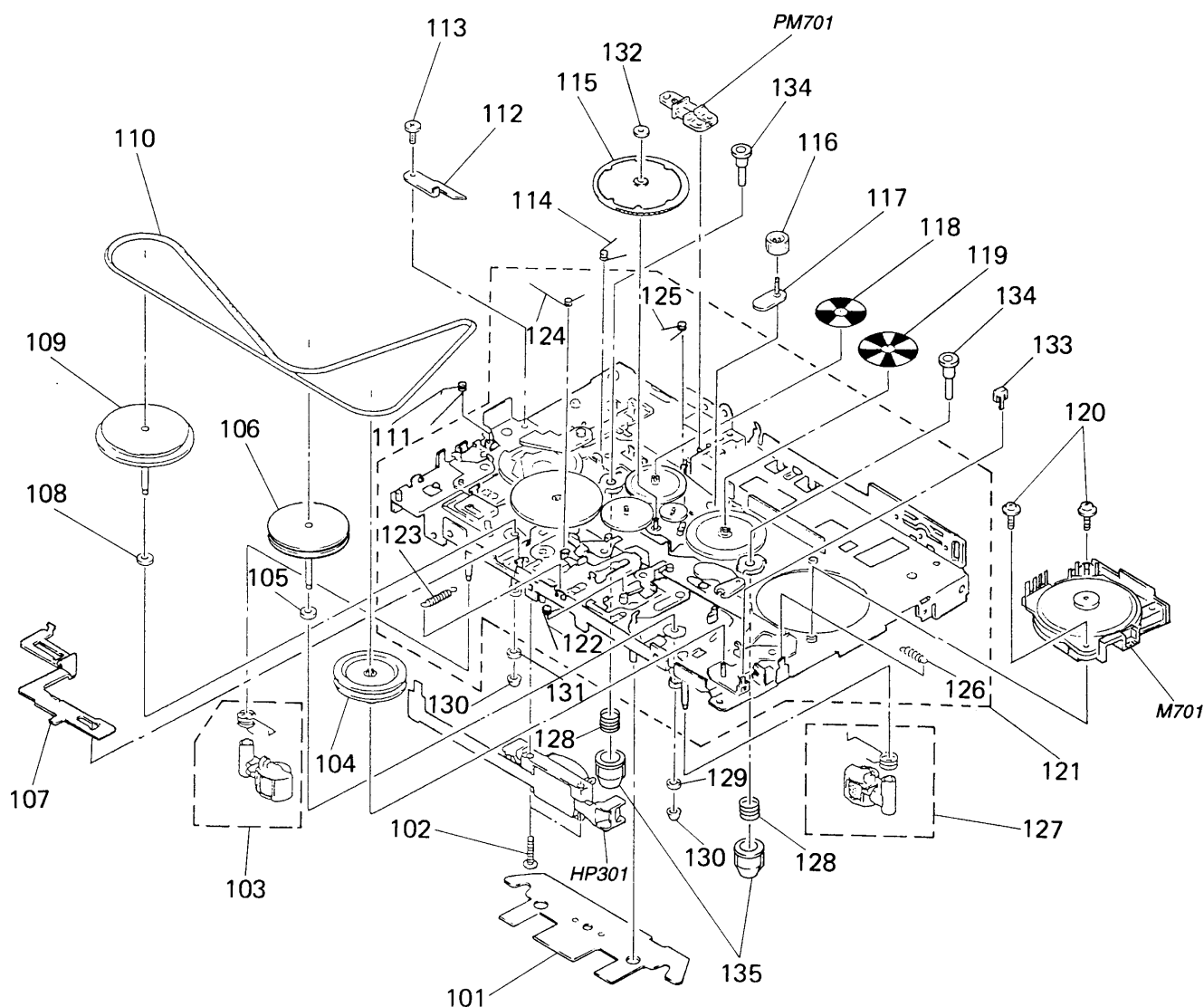
(2) AUDIO BOARD SECTION



Ref. No.	Part No.	Description	Remark
51	A-3061-372-A	AUDIO BOARD, COMPLETE	
52	3-007-277-01	LEVER (OPEN)	
53	3-007-285-01	COVER (A), MD (Tourist)	
53	3-007-285-11	COVER (A), MD (AEP, UK)	
53	3-007-285-21	COVER (A), MD (US, Canadian, E, Korea)	
54	X-3372-820-1	BRACKET ASSY	
55	3-007-290-01	SPRING, TENSION	
56	3-007-280-01	TERMINAL BOARD	
57	X-3372-828-1	TERMINAL BOARD ASSY, BATTERY	
58	3-007-294-01	LID, BATTERY CASE (for BLACK)	(Korea, Tourist)
58	3-007-294-11	LID, BATTERY CASE (for BLUE)	(Korea, Tourist)

Ref. No.	Part No.	Description	Remark
58	3-007-294-21	LID, BATTERY CASE (for SILVER)	
58	3-007-294-31	LID, BATTERY CASE (for RED)	(Korea, Tourist)
59	3-007-282-01	TERMINAL BOARD (MINUS), BATTERY	
* 60	1-663-536-12	MODE SWITCH BOARD	
* 61	1-663-535-12	DOLBY SWITCH BOARD	
62	3-366-892-11	SCREW (M1.4X1.4)	
63	3-366-892-01	SCREW (M1.4)	
64	3-375-114-41	SCREW	
65	3-007-295-01	DETENT (A), CASSETTE	
66	3-922-933-01	SPRING (LID LOCK LEVER)	
S710	1-762-793-11	SWITCH, LEAF	

**(3) MECHANISM DECK SECTION
(MT-WMEX5-125)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-007-431-01	COVER (B), MD		120	3-007-427-01	SCREW (IB LOCK)	
102	3-704-413-31	SCREW (M1.4X7.2)		121	X-3372-854-1	CHASSIS COMPLETE ASSY	
103	X-3372-850-1	PINCH LEVER (N) ASSY		122	3-007-455-01	SPRING (R), TORSION	
104	3-007-434-01	PULLEY (REVERSE)		123	3-007-458-01	SPRING (H/B), TENSION	
105	3-007-428-01	WASHER (R)		124	3-007-456-01	SPRING (N), TORSION	
106	X-3372-851-1	FLYWHEEL (R) ASSY		125	3-007-454-01	SPRING (FR), TORSION	
107	3-007-439-01	SLIDER (LOCK)		126	3-007-457-01	SPRING (TEN), TENSION	
108	3-386-694-01	WASHER		127	X-3372-849-1	PINCH LEVER (R) ASSY	
109	X-3372-852-1	FLYWHEEL (N) ASSY		128	3-010-954-01	SPRING (BT), COMPRESSION	
110	3-007-430-01	BELT		129	3-918-943-01	WASHER, STOPPER	
111	3-007-437-01	SPRING (EJECT), TORSION		130	3-366-017-02	BUSHING (CAPSTAN)	
112	3-007-438-01	LEVER (TRIGGER B)		131	3-007-429-01	WASHER (R), STOPPER	
113	3-366-892-02	SCREW (M1.4)		132	3-932-724-21	WASHER	
114	3-007-436-01	SPRING (TRIGGER), TORSION		* 133	3-010-272-01	BELT	
115	X-3372-848-1	CLUTCH ASSY (M)		134	3-010-273-01	GEAR (REEL)	
116	3-007-435-01	GEAR (FR)		135	3-010-274-01	TABLE, REEL	
117	X-3372-853-1	LEVER (FRG) ASSY		HP301	1-500-398-11	HEAD, MAGNETIC (PLAYBACK)	
118	3-007-433-01	SHEET (N), REFLECTION		M701	1-698-849-11	MOTOR (REEL/CAPSTAN)	
119	3-007-432-01	SHEET (R), REFLECTION		PM701	1-454-674-31	SOLENOID, PLUNGER	

AUDIO

SECTION 8 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A... uPA...: μ PA...
uPB...: μ PB... uPC...: μ PC... uPD...: μ PD...
- CAPACITORS
uF: μ F
- COILS
uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-3061-372-A	AUDIO BOARD, COMPLETE *****					
		< CAPACITOR >					
C101	1-162-963-11	CERAMIC CHIP 680PF	10% 50V	C215	1-164-227-11	CERAMIC CHIP 0.022uF	10% 25V
C102	1-162-963-11	CERAMIC CHIP 680PF	10% 50V	C216	1-164-677-11	CERAMIC CHIP 0.033uF	10% 16V
C103	1-117-181-11	TANTAL. CHIP 4.7uF	20% 2.5V	C217	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C104	1-164-227-11	CERAMIC CHIP 0.022uF	10% 25V	C301	1-104-847-11	TANTAL. CHIP 22uF	20% 4V
C105	1-115-156-11	CERAMIC CHIP 1uF	10V				
C106	1-162-965-11	CERAMIC CHIP 0.0015uF	10% 50V	C302	1-164-489-11	CERAMIC CHIP 0.22uF	10% 16V
C107	1-164-174-11	CERAMIC CHIP 0.0082uF	10% 25V	C303	1-109-982-11	CERAMIC CHIP 1uF	10% 10V
C108	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C304	1-109-935-11	TANTAL. CHIP 4.7uF	20% 6.3V
C109	1-115-156-11	CERAMIC CHIP 1uF	10V	C305	1-104-847-11	TANTAL. CHIP 22uF	20% 4V
C110	1-107-823-11	CERAMIC CHIP 0.47uF	10% 16V	C306	1-162-974-11	CERAMIC CHIP 0.01uF	50V
C111	1-109-936-11	TANTAL. CHIP 3.3uF	20% 2.5V	C307	1-107-815-11	TANTAL. CHIP 2.2uF	20% 4V
C112	1-115-156-11	CERAMIC CHIP 1uF	10V	C308	1-117-181-11	TANTAL. CHIP 4.7uF	20% 2.5V
C113	1-165-128-11	CERAMIC CHIP 0.22uF	16V	C309	1-109-930-11	TANTAL. CHIP 220uF	20% 2.5V
C114	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C310	1-165-128-11	CERAMIC CHIP 0.22uF	16V
C115	1-164-227-11	CERAMIC CHIP 0.022uF	10% 25V	C311	1-135-201-11	TANTALUM CHIP 10uF	20% 4V
C116	1-164-677-11	CERAMIC CHIP 0.033uF	10% 16V	C312	1-165-128-11	CERAMIC CHIP 0.22uF	16V
C117	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V	C313	1-117-181-11	TANTAL. CHIP 4.7uF	20% 2.5V
C201	1-162-963-11	CERAMIC CHIP 680PF	10% 50V	C314	1-115-156-11	CERAMIC CHIP 1uF	10V
C202	1-162-963-11	CERAMIC CHIP 680PF	10% 50V	C315	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
C203	1-117-181-11	TANTAL. CHIP 4.7uF	20% 2.5V	C316	1-109-936-11	TANTAL. CHIP 3.3uF	20% 2.5V
C204	1-164-227-11	CERAMIC CHIP 0.022uF	10% 25V	C317	1-109-982-11	CERAMIC CHIP 1uF	10% 10V
C205	1-115-156-11	CERAMIC CHIP 1uF	10V	C318	1-117-181-11	TANTAL. CHIP 4.7uF	20% 2.5V
C206	1-162-965-11	CERAMIC CHIP 0.0015uF	10% 50V	C319	1-109-930-11	TANTAL. CHIP 220uF	20% 2.5V
C207	1-164-174-11	CERAMIC CHIP 0.0082uF	10% 25V	C320	1-115-156-11	CERAMIC CHIP 1uF	10V
C208	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C321	1-107-826-11	CERAMIC CHIP 0.1uF	10% 16V
C209	1-115-156-11	CERAMIC CHIP 1uF	10V	C601	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C210	1-107-823-11	CERAMIC CHIP 0.47uF	10% 16V	C602	1-109-982-11	CERAMIC CHIP 1uF	10% 10V
C211	1-109-936-11	TANTAL. CHIP 3.3uF	20% 2.5V	C603	1-165-176-11	CERAMIC CHIP 0.047uF	10% 16V
C212	1-115-156-11	CERAMIC CHIP 1uF	10V	C604	1-165-176-11	CERAMIC CHIP 0.047uF	10% 16V
C213	1-165-128-11	CERAMIC CHIP 0.22uF	16V	C605	1-137-286-11	FILM CHIP 0.0022uF	5% 16V
C214	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	C606	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
				C607	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
				C608	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
				C609	1-109-982-11	CERAMIC CHIP 1uF	10% 10V
				C610	1-164-695-11	CERAMIC CHIP 0.0022uF	5% 50V
				C701	1-115-156-11	CERAMIC CHIP 1uF	10V
				C702	1-115-156-11	CERAMIC CHIP 1uF	10V

Ref. No.	Part No.	Description	Remark	
C703	1-115-156-11	CERAMIC CHIP 1uF	10V	
C704	1-164-505-11	CERAMIC CHIP 2. 2uF	16V	
C705	1-164-156-11	CERAMIC CHIP 0. 1uF	25V	
C801	1-165-176-11	CERAMIC CHIP 0. 047uF	10%	16V
C802	1-162-970-11	CERAMIC CHIP 0. 01uF	10%	25V
C803	1-165-176-11	CERAMIC CHIP 0. 047uF	10%	16V
C804	1-109-935-11	TANTAL. CHIP 4. 7uF	20%	6. 3V
C805	1-107-685-11	TANTAL. CHIP 15uF	20%	6. 3V
C807	1-104-847-11	TANTAL. CHIP 22uF	20%	4V
C901	1-115-156-11	CERAMIC CHIP 1uF	10V	
C902	1-115-156-11	CERAMIC CHIP 1uF	10V	

< CONNECTOR >

CN301 1-766-336-21 CONNECTOR, FFC/FPC 6P

< DIODE >

D701 8-719-989-53 LED CL-200HR-C-TSL (BATT)
D702 8-719-404-49 DIODE MA111
D901 8-719-056-89 DIODE MA8120-TX
D902 8-719-056-89 DIODE MA8120-TX

< FUSE >

△F701 1-533-792-11 FUSE (SMD)

< FERRITE BEAD >

FB101 1-414-385-11 INDUCTOR, FERRITE BEAD
FB201 1-414-385-11 INDUCTOR, FERRITE BEAD
FB301 1-414-235-11 INDUCTOR, FERRITE BEAD

< IC >

IC301 8-759-440-52 IC TA2103F
IC601 8-759-431-31 IC LB1899M-TLM
IC701 8-759-440-54 IC MB89133L-CFX1466
IC702 8-759-438-27 IC MM1305BWB
IC703 8-759-445-09 IC XC61ASOVXXMR
IC704 8-759-445-08 IC XC61ASOTXXMR
IC801 8-759-440-53 IC MPC1850DTBEL

< JACK >

J301 1-778-930-21 JACK 7P (REMOTE ?)

< CHIP CONDUCTOR >

JC901 1-216-864-11 METAL CHIP 0 5% 1/16W

< PHOTO INTERRUPTER >

PH701 8-719-988-15 PHTO REFLECTOR PR-11-C
PH702 8-719-988-15 PHTO REFLECTOR PR-11-C

Ref. No.	Part No.	Description	Remark
< TRANSISTOR >			
Q301	8-729-807-87	TRANSISTOR	2SB1295-UL6
Q302	8-729-040-12	TRANSISTOR	MUN5215T1
Q303	8-729-422-39	TRANSISTOR	XN4404
Q304	8-729-426-36	TRANSISTOR	XP1215-TXE
Q305	8-729-040-12	TRANSISTOR	MUN5215T1
Q306	8-729-426-36	TRANSISTOR	XP1215-TXE
Q307	8-729-426-36	TRANSISTOR	XP1215-TXE
Q601	8-729-025-88	TRANSISTOR	2SB1386-T100-R
Q602	8-729-030-54	TRANSISTOR	MSB1218A-RT1
Q603	8-729-040-13	TRANSISTOR	MUN5115T1

Q604 8-729-039-36 TRANSISTOR MDC06TR
Q701 8-729-230-72 TRANSISTOR 2SA1362YG
Q702 8-729-020-99 TRANSISTOR UN5215-RS-TX
Q704 8-729-425-46 TRANSISTOR XP4315-TXE
Q705 8-729-427-51 TRANSISTOR XP4215-TXE

< RESISTOR >

R101 1-218-944-11 METAL GLAZE 180 5% 1/16W
R102 1-218-963-11 METAL GLAZE 6. 8K 5% 1/16W
R103 1-218-270-11 METAL GLAZE 1. 1K 5% 1/16W
R104 1-216-834-11 METAL CHIP 12K 5% 1/16W
R105 1-216-852-11 METAL CHIP 390K 5% 1/16W
R106 1-216-821-11 METAL CHIP 1K 5% 1/16W
R107 1-216-793-11 METAL GLAZE 4. 7 5% 1/16W
R108 1-218-979-11 METAL GLAZE 150K 5% 1/16W
R109 1-216-821-11 METAL CHIP 1K 5% 1/16W
R110 1-218-956-11 METAL GLAZE 1. 8K 5% 1/16W
R111 1-218-957-11 METAL GLAZE 2. 2K 5% 1/16W
R112 1-216-839-11 METAL CHIP 33K 5% 1/16W
R113 1-218-971-11 METAL GLAZE 33K 5% 1/16W
R114 1-216-809-11 METAL CHIP 100 5% 1/16W
R115 1-216-844-11 METAL CHIP 82K 5% 1/16W
R201 1-218-944-11 METAL GLAZE 180 5% 1/16W
R202 1-218-963-11 METAL GLAZE 6. 8K 5% 1/16W
R203 1-218-270-11 METAL GLAZE 1. 1K 5% 1/16W
R204 1-216-834-11 METAL CHIP 12K 5% 1/16W
R205 1-216-852-11 METAL CHIP 390K 5% 1/16W
R206 1-216-821-11 METAL CHIP 1K 5% 1/16W
R207 1-216-793-11 METAL GLAZE 4. 7 5% 1/16W
R208 1-218-979-11 METAL GLAZE 150K 5% 1/16W
R209 1-216-821-11 METAL CHIP 1K 5% 1/16W
R210 1-218-956-11 METAL GLAZE 1. 8K 5% 1/16W
R211 1-218-957-11 METAL GLAZE 2. 2K 5% 1/16W
R212 1-216-839-11 METAL CHIP 33K 5% 1/16W
R213 1-218-971-11 METAL GLAZE 33K 5% 1/16W
R214 1-216-809-11 METAL CHIP 100 5% 1/16W
R215 1-216-844-11 METAL CHIP 82K 5% 1/16W

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

AUDIO

DOLBY SWITCH

MODE SWITCH

Ref. No.	Part No.	Description	Remark
R301	1-218-891-11	METAL GLAZE	68K 0.50% 1/16W
R302	1-218-879-11	METAL GLAZE	22K 0.50% 1/16W
R303	1-218-877-11	METAL GLAZE	18K 0.50% 1/16W
R304	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
R305	1-218-295-11	METAL GLAZE	43K 5% 1/16W
R306	1-216-821-11	METAL CHIP	1K 5% 1/16W
R307	1-216-793-11	METAL GLAZE	4.7 5% 1/16W
R308	1-216-849-11	METAL CHIP	220K 5% 1/16W
R309	1-216-837-11	METAL CHIP	22K 5% 1/16W
R601	1-216-849-11	METAL CHIP	220K 5% 1/16W
R602	1-216-853-11	METAL CHIP	470K 5% 1/16W
R603	1-216-857-11	METAL CHIP	1M 5% 1/16W
R604	1-216-857-11	METAL CHIP	1M 5% 1/16W
R605	1-216-849-11	METAL CHIP	220K 5% 1/16W
R608	1-220-372-11	METAL GLAZE	200K 5% 1/16W
R609	1-216-857-11	METAL CHIP	1M 5% 1/16W
R610	1-218-349-11	METAL CHIP	240K 5% 1/16W
R701	1-216-849-11	METAL CHIP	220K 5% 1/16W
R702	1-216-841-11	METAL CHIP	47K 5% 1/16W
R703	1-218-879-11	METAL GLAZE	22K 0.50% 1/16W
R704	1-216-849-11	METAL CHIP	220K 5% 1/16W
R705	1-218-863-11	METAL GLAZE	4.7K 0.50% 1/16W
R706	1-218-881-11	METAL GLAZE	27K 0.50% 1/16W
R707	1-218-887-11	METAL GLAZE	47K 0.50% 1/16W
R708	1-216-849-11	METAL CHIP	220K 5% 1/16W
R709	1-216-837-11	METAL CHIP	22K 5% 1/16W
R710	1-218-981-11	METAL GLAZE	220K 5% 1/16W
R711	1-218-981-11	METAL GLAZE	220K 5% 1/16W
R712	1-218-949-11	METAL GLAZE	470 5% 1/16W
R713	1-216-849-11	METAL CHIP	220K 5% 1/16W
R714	1-216-833-11	METAL CHIP	10K 5% 1/16W
R715	1-216-849-11	METAL CHIP	220K 5% 1/16W
R716	1-218-879-11	METAL GLAZE	22K 0.50% 1/16W
R717	1-218-836-11	METAL GLAZE	360 0.50% 1/16W
R718	1-218-845-11	METAL GLAZE	820 0.50% 1/16W
R719	1-218-847-11	METAL GLAZE	1K 0.50% 1/16W
R720	1-218-849-11	METAL GLAZE	1.2K 0.50% 1/16W
R722	1-216-849-11	METAL CHIP	220K 5% 1/16W
R723	1-216-817-11	METAL CHIP	470 5% 1/16W
R724	1-216-848-11	METAL CHIP	180K 5% 1/16W
R725	1-216-817-11	METAL CHIP	470 5% 1/16W
R726	1-216-848-11	METAL CHIP	180K 5% 1/16W
R731	1-218-973-11	METAL GLAZE	47K 5% 1/16W
R732	1-218-973-11	METAL GLAZE	47K 5% 1/16W
R734	1-216-833-11	METAL CHIP	10K 5% 1/16W
R735	1-216-843-11	METAL CHIP	68K 5% 1/16W
R736	1-218-981-11	METAL GLAZE	220K 5% 1/16W
R801	1-216-859-11	METAL GLAZE	1.5M 5% 1/16W

Ref. No.	Part No.	Description	Remark
R901	1-218-973-11	METAL GLAZE	47K 5% 1/16W
< COMPOSITION CIRCUIT BLOCK >			
RB601	1-236-875-11	RES, NETWORK	
RB602	1-236-907-11	NETWORK RESISTOR (CHIP) 100K	
RB701	1-236-883-11	RES, NETWORK	
RB702	1-236-875-11	RES, NETWORK	
< VARIABLE RESISTOR >			
RV301	1-225-333-31	RES, VAR, CARBON 10K/10K (VOL)	
RV601	1-225-408-11	RES, ADJ, METAL GLAZE 150K	
< SWITCH >			
S701	1-762-230-11	SWITCH, KEYBOARD (STOP)	
S702	1-762-230-11	SWITCH, KEYBOARD (PLAY)	
S703	1-762-230-11	SWITCH, KEYBOARD (FF)	
S704	1-762-230-11	SWITCH, KEYBOARD (REW)	
S705	1-762-835-11	SWITCH, PUSH (1 KEY) (HOLDER)	
S706	1-762-516-11	SWITCH, PUSH (1 KEY) (A/B)	
S707	1-572-581-11	SWITCH, SLIDE (FWD/REV)	
< VIBRATOR >			
X701	1-767-289-11	VIBRATOR, CERAMIC (4MHz)	

* 1-663-535-12 DOLBY SWITCH BOARD			

< SWITCH >			
S708	1-572-922-11	SWITCH, SLIDE (DOLBY NR)	

* 1-663-536-12 MODE SWITCH BOARD			

< SWITCH >			
S709	1-572-922-11	SWITCH, SLIDE (MODE, BL SKIP)	

MISCELLANEOUS			

HP301	1-500-398-11	HEAD, MAGNETIC (PLAYBACK)	
M701	1-698-849-11	MOTOR (REEL/CAPSTAN)	
PM701	1-454-674-31	SOLENOID, PLUNGER	
S710	1-762-793-11	SWITCH, LEAF	

Ref. No.	Part No.	Description	Remark
ACCESSORIES & PACKING MATERIALS			

	1-473-937-11	REMOTE CONTROL UNIT (RM-WM71EL)	
⚠	1-528-252-11	BATTERY CHARGER (BC-7S) (UK)	
	1-528-539-21	BATTERY CASE	
	1-528-543-22	BATTERY, NICKEL CADMIUM (NC-6WM)	
		(Canadian, AEP, UK)	
⚠	1-528-576-11	BATTERY CHARGER (BC-9HU) (US)	
⚠	1-528-580-11	BATTERY CHARGER (BC-7HT) (E, Tourist)	
⚠	1-528-676-11	BATTERY CHARGER (BC-9HR) (Korea)	
⚠	1-528-713-11	BATTERY CHARGER (BC-7DC) (Canadian)	
	1-528-743-11	BATTERY, NICKEL HYDROGEN	
		(US, E, Korea, Tourist)	
⚠	1-528-744-11	BATTERY CHARGER (BC-7DY) (AEP)	
	1-569-007-11	ADAPTOR, CONVERSION 2P (E, Tourist)	
*	3-008-237-01	CASE, INDIVIDUAL (Tourist)	
*	3-008-238-01	CASE, INDIVIDUAL (US)	
	3-008-521-01	CASE, BATTERY CARRYING	
	3-800-626-01	INSTRUCTION (A7 SIZE) (Tourist)	
	3-856-976-01	MANUAL, INSTRUCTION (JAPANESE, ENGLISH, KOREAN) (Tourist)	
	3-856-976-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH (US, Canadian, AEP, UK, E, Korea)	
	3-856-976-21	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH) (AEP)	
	3-856-976-31	MANUAL, INSTRUCTION (ITALIAN, PORTUGUESE, SPANISH) (AEP)	
	3-856-976-41	MANUAL, INSTRUCTION (SPANISH, CHINESE, KOREAN) (E, Korea)	
	3-929-799-01	CASE, CARRYING	
	8-953-171-90	HEADPHONE MDR-ED136MP//K SET	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

WM-EX5

SONY.

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Tourist Model

SUPPLEMENT-1

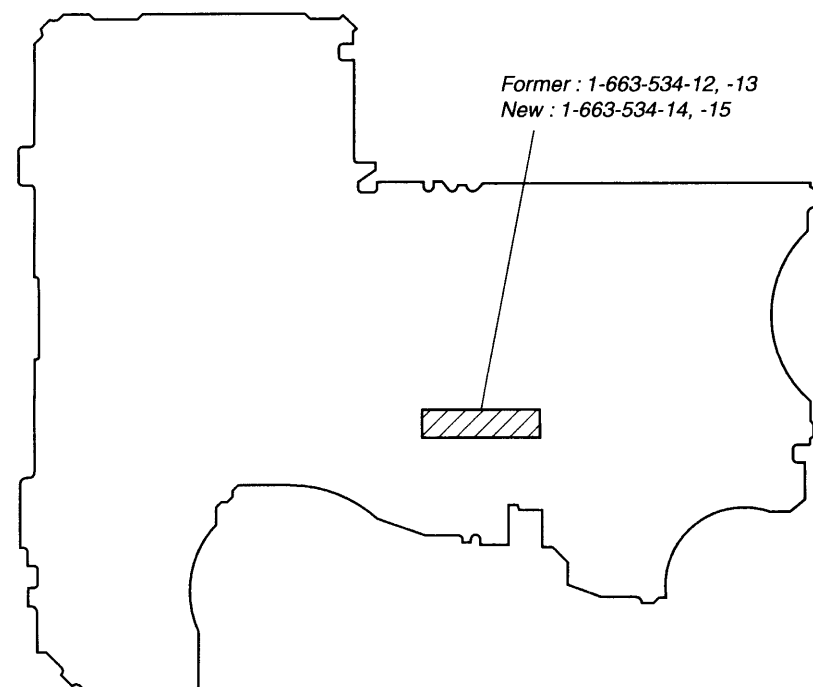
File this supplement with the service manual.

Subject: Board Modification

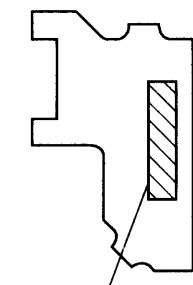
(ECN:WM700141/WM700476)

1. NEW/FORMER DISCRIMINATION

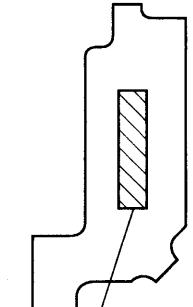
[AUDIO BOARD] (SIDE A)



[MODE SWITCH BOARD]



[DOLBY SWITCH BOARD]



AUDIO

2. ELECTRICAL PARTS LIST

NOTE:

• Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

• -XX and -X mean standardized parts, so they may have some difference from the original one.

• RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

• Items marked "※" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• SEMICONDUCTORS
In each case, u: μ , for example:
uA... : μ A... uPA... : μ PA...
uPB... : μ PB... uPC... : μ PC...
uPD... : μ PD...

• CAPACITORS
uF: μ F
• COILS
uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark
	A-3061-372-A	AUDIO BOARD, COMPLETE *****	
		< CAPACITOR >	
C101	1-162-963-11	CERAMIC CHIP 680PF 10% 50V	
C102	1-162-963-11	CERAMIC CHIP 680PF 10% 50V	
C103	1-117-181-11	TANTAL. CHIP 4.7uF 20% 2.5V	
C104	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V	
C105	1-115-156-11	CERAMIC CHIP 1uF 10V	
C106	1-162-965-11	CERAMIC CHIP 0.0015uF 10% 50V	
C107	1-164-174-11	CERAMIC CHIP 0.0082uF 10% 25V	
C108	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C109	1-115-156-11	CERAMIC CHIP 1uF 10V	
C110	1-107-823-11	CERAMIC CHIP 0.47uF 10% 16V	
C111	1-109-936-11	TANTAL. CHIP 3.3uF 20% 2.5V	
C112	1-115-156-11	CERAMIC CHIP 1uF 10V	
C113	1-165-128-11	CERAMIC CHIP 0.22uF 16V	
C114	1-162-970-11	CERAMIC CHIP 0.01uF 25V	
C115	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V	
C116	1-164-677-11	CERAMIC CHIP 0.033uF 10% 16V	
C117	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C201	1-162-963-11	CERAMIC CHIP 680PF 10% 50V	
C202	1-162-963-11	CERAMIC CHIP 680PF 10% 50V	
C203	1-117-181-11	TANTAL. CHIP 4.7uF 20% 2.5V	
C204	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V	
C205	1-115-156-11	CERAMIC CHIP 1uF 10V	
C206	1-162-965-11	CERAMIC CHIP 0.0015uF 10% 50V	
C207	1-164-174-11	CERAMIC CHIP 0.0082uF 10% 25V	
C208	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C209	1-115-156-11	CERAMIC CHIP 1uF 10V	
C210	1-107-823-11	CERAMIC CHIP 0.47uF 10% 16V	
C211	1-109-936-11	TANTAL. CHIP 3.3uF 20% 2.5V	
C212	1-115-156-11	CERAMIC CHIP 1uF 10V	
C213	1-165-128-11	CERAMIC CHIP 0.22uF 16V	
C214	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C215	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V	

Ref. No.	Part No.	Description	Remark
C216	1-164-677-11	CERAMIC CHIP 0.033uF 10% 16V	
C217	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C301	1-104-847-11	TANTAL. CHIP 22uF 20% 4V	
C302	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	
C303	1-109-982-11	CERAMIC CHIP 1uF 10% 10V	
C304	1-109-935-11	TANTAL. CHIP 4.7uF 20% 6.3V	
C305	1-104-847-11	TANTAL. CHIP 22uF 20% 4V	
C306	1-162-974-11	CERAMIC CHIP 0.01uF 50V	
C307	1-107-815-11	TANTAL. CHIP 2.2uF 20% 4V	
C308	1-117-181-11	TANTAL. CHIP 4.7uF 20% 2.5V	
C309	1-109-930-11	TANTAL. CHIP 220uF 20% 2.5V	
C310	1-165-128-11	CERAMIC CHIP 0.22uF 16V	
C311	1-135-201-11	TANTALUM CHIP 10uF 20% 4V	
C312	1-165-128-11	CERAMIC CHIP 0.22uF 16V	
C313	1-117-181-11	TANTAL. CHIP 4.7uF 20% 2.5V	
C314	1-115-156-11	CERAMIC CHIP 1uF 10V	
C315	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C316	1-109-936-11	TANTAL. CHIP 3.3uF 20% 2.5V	
C317	1-109-982-11	CERAMIC CHIP 1uF 10% 10V	
C318	1-117-181-11	TANTAL. CHIP 4.7uF 20% 2.5V	
C319	1-109-930-11	TANTAL. CHIP 220uF 20% 2.5V	
C320	1-115-156-11	CERAMIC CHIP 1uF 10V	
C321	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C601	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V	
C602	1-109-936-11	TANTAL. CHIP 3.3uF 20% 2.5V	
C603	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C604	1-165-176-11	CERAMIC CHIP 0.047uF 10% 16V	
C606	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C607	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C608	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C609	1-109-982-11	CERAMIC CHIP 1uF 10% 10V	
C610	1-164-695-11	CERAMIC CHIP 0.0022uF 5% 50V	
C701	1-115-156-11	CERAMIC CHIP 1uF 10V	
C702	1-115-156-11	CERAMIC CHIP 1uF 10V	
C703	1-115-156-11	CERAMIC CHIP 1uF 10V	
C704	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
C705	1-164-156-11	CERAMIC CHIP 0.1uF 25V	

Ref. No.	Part No.	Description	Remark
C801	1-165-176-11	CERAMIC CHIP 0.047uF 10% 16V	
C802	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C803	1-165-176-11	CERAMIC CHIP 0.047uF 10% 16V	
C804	1-109-935-11	TANTAL. CHIP 4.7uF 20% 6.3V	
C805	1-107-685-11	TANTAL. CHIP 15uF 20% 6.3V	
C807	1-104-847-11	TANTAL. CHIP 22uF 20% 4V	
C901	1-115-156-11	CERAMIC CHIP 1uF 10V	
C902	1-115-156-11	CERAMIC CHIP 1uF 10V	
		< CONNECTOR >	
CN301	1-766-336-21	CONNECTOR, FFC/FPC 6P	
		< DIODE >	
D701	8-719-989-53	DIODE CL-200HR-C-TSL (BATT)	
D702	8-719-404-49	DIODE MA111	
D901	8-719-056-89	DIODE MA8120-TX	
D902	8-719-056-89	DIODE MA8120-TX	
		< FUSE >	
Δ F701	1-533-792-11	FUSE (SMD)	
		< FERRITE BEAD >	
FB101	1-414-385-11	INDUCTOR, FERRITE BEAD	
FB201	1-414-385-11	INDUCTOR, FERRITE BEAD	
FB301	1-414-235-11	INDUCTOR, FERRITE BEAD	
		< IC >	
IC301	8-759-440-52	IC TA2103F	
IC601	8-759-431-31	IC LB1899M-TLM	
IC701	8-759-479-59	IC MB89133LPFV-G-387BND	
IC702	8-759-438-27	IC MM1305BWBE	
IC703	8-759-445-09	IC XC61AS0VXXMR	
IC704	8-759-445-08	IC XC61AS0TXMMR	
IC801	8-759-440-53	IC MPC1850DTBEL	
		< JACK >	
J301	1-778-930-21	JACK 7P (C/REMOTE)	
		< JUMPER RESISTOR >	
JC901	1-216-864-11	METAL CHIP 0 5% 1/16W	
		< PHOTO INTERRUPTER >	
PH701	8-719-988-15	PHOTO REFLECTOR PR-11-C	
PH702	8-719-988-15	PHOTO REFLECTOR PR-11-C	
		< TRANSISTOR >	
Q301	8-729-800-71	TRANSISTOR 2SB815B7-TB	
Q302	8-729-040-12	TRANSISTOR MUN5215T1	

AUDIO

Ref. No.	Part No.	Description	Remark
Q303	8-729-422-39	TRANSISTOR XN4404	
Q304	8-729-426-36	TRANSISTOR XP1215-TXE	
Q305	8-729-040-12	TRANSISTOR MUN5215T1	
Q306	8-729-426-36	TRANSISTOR XP1215-TXE	
Q307	8-729-426-36	TRANSISTOR XP1215-TXE	
Q601	8-729-025-88	TRANSISTOR 2SB1386-T100-R	
Q602	8-729-030-54	TRANSISTOR MSB1218A-RT1	
Q603	8-729-040-13	TRANSISTOR MUN5115T1	
Q604	8-729-039-36	TRANSISTOR MDC06TR	
Q701	8-729-230-72	TRANSISTOR 2SA1362YG	
Q702	8-729-020-99	TRANSISTOR UN5215-RS-TX	
Q703	8-729-230-72	TRANSISTOR 2SA1362YG	
Q704	8-729-425-46	TRANSISTOR XP4315-TXE	
Q705	8-729-427-51	TRANSISTOR XP4215-TXE	
Q706	8-729-020-99	TRANSISTOR UN5215-RS-TX	
Q708	8-729-040-12	TRANSISTOR MUN5215T1	
		< RESISTOR >	
R101	1-218-944-11	METAL GLAZE 180 5% 1/16W	
R102	1-218-963-11	METAL GLAZE 6.8K 5% 1/16W	
R103	1-218-270-11	METAL GLAZE 1.1K 5% 1/16W	
R104	1-216-834-11	METAL CHIP 12K 5% 1/16W	
R105	1-216-852-11	METAL CHIP 390K 5% 1/16W	
R106	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R107	1-216-793-11	METAL GLAZE 4.7 5% 1/16W	
R108	1-218-979-11	METAL GLAZE 150K 5% 1/16W	
R109	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R110	1-218-956-11	METAL GLAZE 1.8K 5% 1/16W	
R111	1-218-957-11	METAL GLAZE 2.2K 5% 1/16W	
R112	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R113	1-218-971-11	METAL GLAZE 33K 5% 1/16W	
R114	1-216-809-11	METAL CHIP 100 5% 1/16W	
R115	1-216-844-11	METAL CHIP 82K 5% 1/16W	
R201	1-218-944-11	METAL GLAZE 180 5% 1/16W	
R202	1-218-963-11	METAL GLAZE 6.8K 5% 1/16W	
R203	1-218-270-11	METAL GLAZE 1.1K 5% 1/16W	
R204	1-216-834-11	METAL CHIP 12K 5% 1/16W	
R205	1-216-852-11	METAL CHIP 390K 5% 1/16W	
R206	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R207	1-216-793-11	METAL GLAZE 4.7 5% 1/16W	
R208	1-218-979-11	METAL GLAZE 150K 5% 1/16W	
R209	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R210	1-218-956-11	METAL GLAZE 1.8K 5% 1/16W	
R211	1-218-957-11	METAL GLAZE 2.2K 5% 1/16W	
R212	1-216-839-11	METAL CHIP 33K 5% 1/16W	
R213	1-218-971-11	METAL GLAZE 33K 5% 1/16W	
R214	1-216-809-11	METAL CHIP 100 5% 1/16W	
R215	1-216-844-11	METAL CHIP 82K 5% 1/16W	
R301	1-218-891-11	METAL GLAZE 68K 0.50% 1/16W	
R302	1-218-879-11	METAL GLAZE 22K 0.50% 1/16W	

AUDIO

DOLBY SWITCH

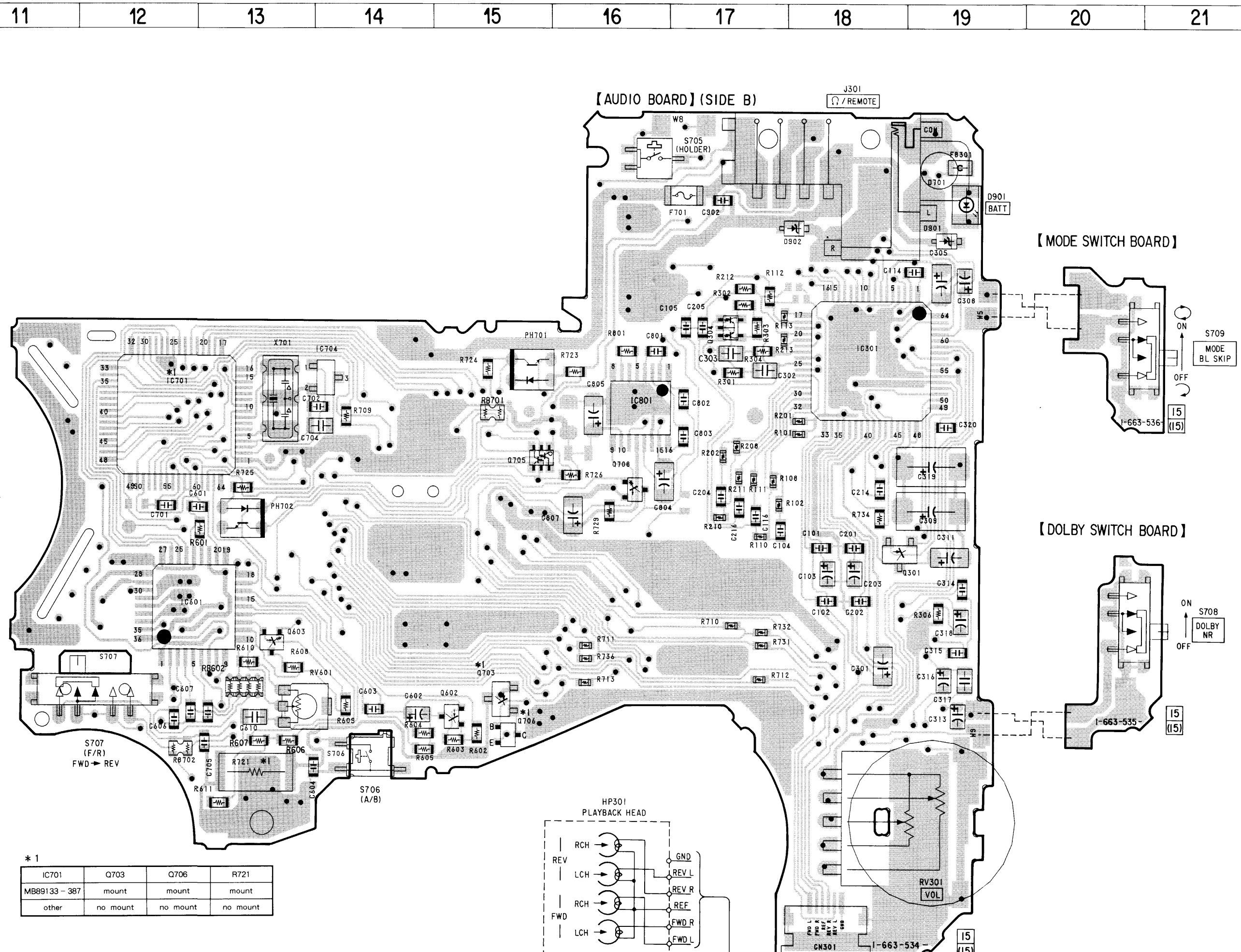
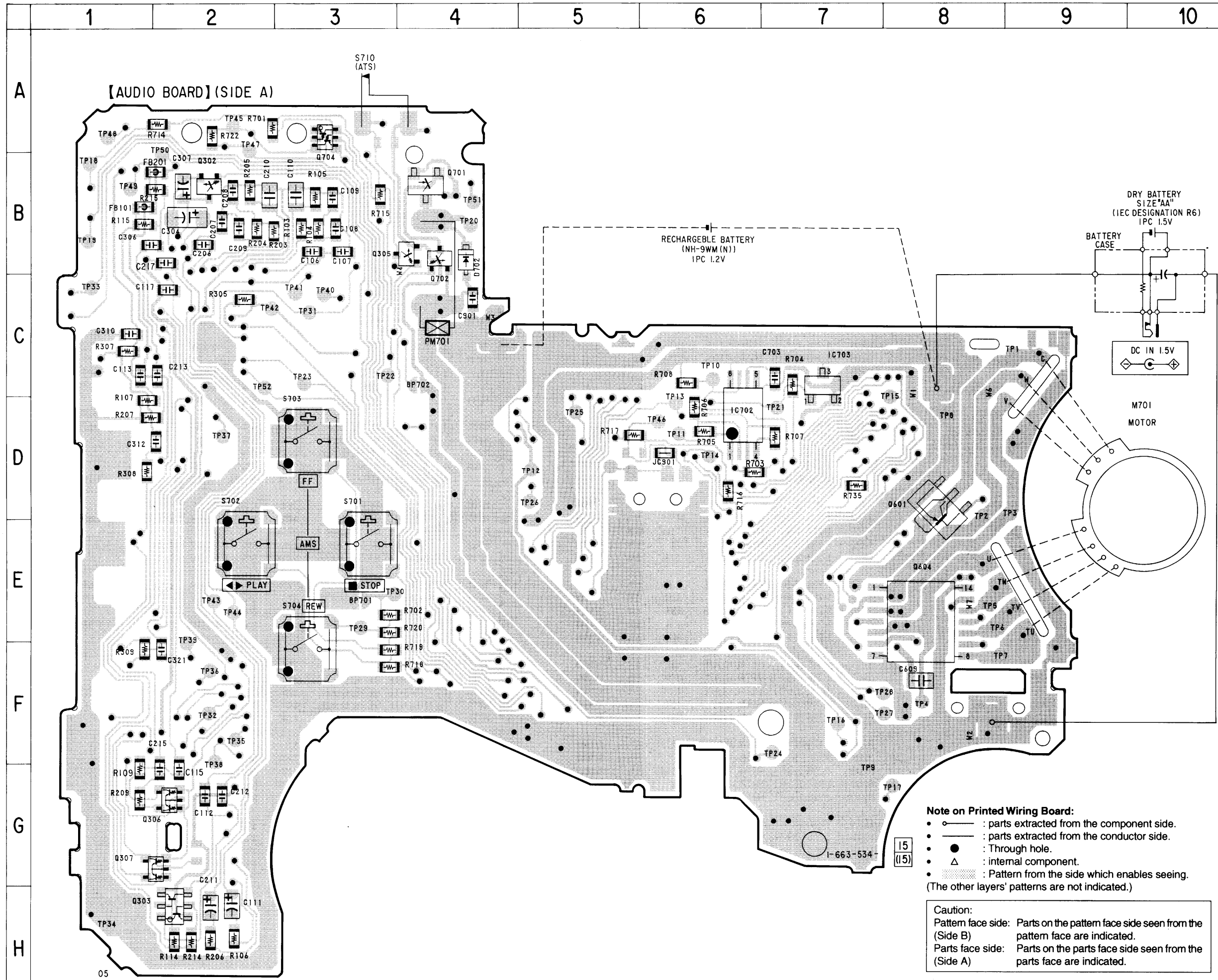
MODE SWITCH

Ref. No.	Part No.	Description	Remark
R303	1-218-877-11	METAL GLAZE 18K 0.50% 1/16W	
R304	1-216-825-11	METAL CHIP 2.2K 5% 1/16W	
R305	1-218-295-11	METAL GLAZE 43K 5% 1/16W	
		< CONPOSITION CIRCUIT BLOCK >	
R602	1-216-821-11	METAL CHIP 1K 5% 1/16W	
R307	1-216-793-11	METAL GLAZE 4.7 5% 1/16W	
R308	1-216-849-11	METAL CHIP 220K 5% 1/16W	
R309	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R601	1-216-849-11	METAL CHIP 220K 5% 1/16W	
R602	1-216-853-11	METAL CHIP 470K 5% 1/16W	
R603	1-216-857-11	METAL CHIP 1M 5% 1/16W	
R604	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R605	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R606	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R607	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R608	1-216-855-11	METAL CHIP 680K 5% 1/16W	
R609	1-216-863-11	METAL GLAZE 3.3M 5% 1/16W	
R610	1-202-931-11	METAL GLAZE 910K 5% 1/16W	
R611	1-216-857-11	METAL CHIP 1M 5% 1/16W	
R701	1-216-849-11	METAL CHIP 220K 5% 1/16W	
R702	1-216-841-11	METAL CHIP 47K 5% 1/16W	
R703	1-218-879-11	METAL GLAZE 22K 0.50% 1/16W	
R704	1-216-849-11	METAL CHIP 220K 5% 1/16W	
R705	1-218-863-11	METAL GLAZE 4.7K 0.50% 1/16W	
R706	1-218-881-11	METAL GLAZE 27K 0.50% 1/16W	
R707	1-218-887-11	METAL GLAZE 47K 0.50% 1/16W	
R708	1-216-849-11	METAL CHIP 220K 5% 1/16W	
R709	1-216-837-11	METAL CHIP 22K 5% 1/16W	
R710	1-218-981-11	METAL GLAZE 220K 5% 1/16W	
R711	1-218-981-11	METAL GLAZE 220K 5% 1/16W	
R712	1-218-949-11	METAL GLAZE 470 5% 1/16W	
R713	1-218-981-11	METAL GLAZE 220K 5% 1/16W	
R714	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R715	1-216-849-11	METAL CHIP 220K 5% 1/16W	
R716	1-218-879-11	METAL GLAZE 22K 0.50% 1/16W	
R717	1-218-836-11	METAL GLAZE 360 0.50% 1/16W	
R718	1-218-845-11	METAL GLAZE 820 0.50% 1/16W	
R719	1-218-847-11	METAL GLAZE 1K 0.50% 1/16W	
R720	1-218-849-11	METAL GLAZE 1.2K 0.50% 1/16W	
R721	1-218-608-11	METAL CHIP 3.3 5% 1W	

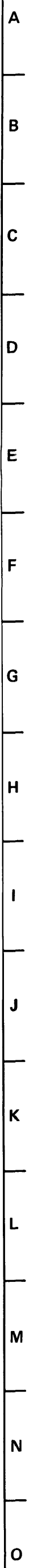
3. PRINTED WIRING BOARDS

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D701	B-19	Q301	E-18
D702	B-4	Q302	B-2
D901	B-19	Q303	H-2
D902	B-18	Q304	C-17
IC301	C-18	Q305	B-4
IC601	E-12	Q306	G-2
IC701	D-12	Q307	G-2
IC702	D-6	Q601	D-8
IC703	C-7	Q602	F-15
IC704	C-14	Q603	F-13
IC801	D-16	Q604	E-8
		Q701	B-4
		Q702	B-4
		Q703	F-15
		Q704	A-3
		Q705	D-15
		Q706	F-15
		Q708	D-16



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IC701	Q703	Q706	R721
MB89133 - 387	2SA1362	UN5215	3.3
other	not used	not used	not used

WM-EX5

SONY®

SERVICE MANUAL

*US Model
Canadian Model
AEP Model
UK Model
E Model
Tourist Model*

SUPPLEMENT-2

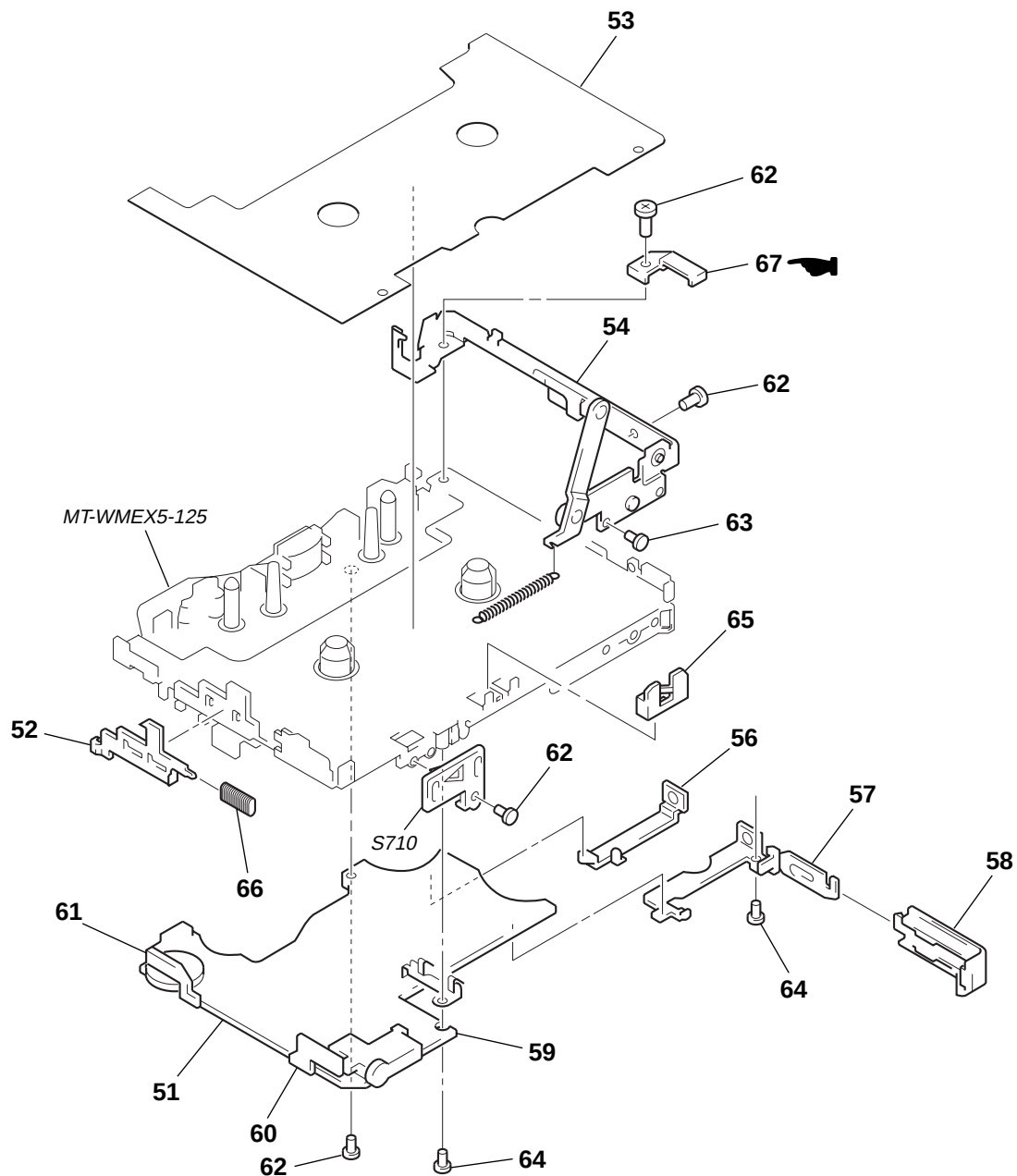
File this supplement with the service manual.

Subject: Addition of Bracket

(SPM-97014)

(2) AUDIO BOARD SECTION (Service Manual Page 22)

 : Added portion.



Ref. No.	Part No.	Description	Remark
67	3-012-409-02	BRACKET	